



MODERN TECHNOLOGIES FOR SOLVING ACTUAL SOCIETY'S PROBLEMS

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2.5. INNOVATIONS IN TOURISM

It is known that the tourism sector in Ukraine was and will be one of the most promising, because the country has all the conditions for the development of domestic and foreign tourism. Until last year, tourism companies provided mainly international tourism services, but the pandemic has made adjustments, and now many tourism companies are targeting the domestic tourist, who needs to be provided with quality service. Today, in order to solve various tasks and improve the quality of services in tourism, enterprises are offered a wide selection of the latest technologies, including: global computer reservation systems (GDS), integrated communication networks, multimedia systems, smart cards, management information systems and many others.

The tourism sector is so multifaceted that it requires the use of a wide variety of information technologies. First of all, we will consider global computer reservation systems. The first reservation systems for air transport services began to appear in the late 1950s, such technologies were widely implemented in the hotel industry in the 1990s, a little later – in tourism enterprises. Computer reservation systems provide air services, accommodation services, car rentals, cruise tours, full information support about the place of stay, currency rates, weather reports, bus and rail connections.

These systems make it possible to book all the main components of a tour – from hotel rooms and airline tickets to theater tickets and insurance policies. The largest global computer reservation systems in the international travel market are Amadeus, Galileo, Worldspan and Sabre. Amadeus is a global computer booking system for flights, hotels, cars, railways, ferries and cruises. It ranks first in the world in terms of the number of travel agencies that use this system.

Amadeus partners include 500 airlines, including the Ukrainian Aerosvit. In total, the Amadeus system allows you to monitor airline schedules around the world and offers the services of 52 car rental companies. This system works in more than 51,000 hotels. Among the most famous are chain hotels such as Marriott, Western Hotels, and Sheraton. In some markets, Amadeus offers rail, ferry and cruise bookings. Amadeus was the first and for a long time the only one of the GRS that came to Ukraine in the early 90s. Its representative offices operate in Kyiv and other regional and district centers of Ukraine.

It is not by chance that this company leads the Ukrainian market by a margin in terms of the number of connected travel agencies: about 500 Ukrainian agencies book airline tickets, accommodation and car rental services, train tickets, cruises and travel packages. Today, there are about 1,500 Amadeus terminals operating in Ukraine. Galileo and Worldspan are combined under the Travelport brand, which is one of the largest providers of electronic distribution services in the travel industry. Travelport is represented on all continents in more than 170 countries, the company's products are used by more than 60,000 travel agencies.

More than 500 air carriers cooperate with the reservation system, contracts have been signed with most airlines, thanks to which travel agencies have access to a complete list of airlines' rates and seat availability. Galileo has the largest number of low-cost carriers, among other GDSs.

In 2000, the Galileo company officially opened its representative office in Ukraine. Currently, more than 300 domestic travel agencies work in the Galileo system. Cooperates with Ukrainian airlines "International Airlines of Ukraine" and "Dniproavia". Among the travel agencies: "Biletiv svit", "Rose of Winds", "Silpo Voyage", TPG, "Feeriya Mandriv", "Fantasia svit" and others. Sabre GDS is a global reservation and distribution system for travel services: more than 55,000 travel agencies and 160,000 hotels, more than 400 airlines, 27 car rental companies, 50 railway and 16 cruise operators.

Saber Corporation is a technology provider for the travel and tourism industry. Sabre is the leading global travel trade platform with an annual turnover of more than \$120 billion.

Saber serves tourists in more than 160 countries around the world, but the company was initially focused on Europe and North America. Fidelio also operates on the Ukrainian market. Its representative in Ukraine is the firm HRS (Hotel AND Restaurant Systems), which not only

implements software products of this Fidelio firm, but also provides technical support for these systems and conducts employee training.

The Fidelio computer system is one of the most popular systems used in the hotel industry, the number of its users in the world exceeds 7.5 thousand. Among the Ukrainian hotels that use this product, it is worth highlighting: Citadel Inn, City Holiday, tourist complex "Zakhar Berkut", national hotel chain Premier, Phillip Morris International, Optima Hotels by Reikartz, sanatorium-resort complex "Morshinkurort", West Park Hotel, ski complex "Plai", sanatorium complex "Derenivska Kupil", etc. In order to connect to computer reservation systems, it is necessary to conclude a contract with a travel agency. This service is paid and involves a one-time fee, which is aimed at providing the necessary software to work in the system. In addition, when using the system, travel companies must pay a certain subscription fee regardless of the number of reservations.

In turn, the company receives a commission for each booking. The ability to work with computerized reservation systems for small travel agencies is provided by tour operators who act as intermediaries between computerized reservation systems and travel agencies. Travel operators provide access to these systems on their sites, after which travel agencies have a full opportunity to use these systems.

As an example, we can cite tour operators "Idriska-tour", "Feeriya", "Annex-tour" and others. Among the domestic systems for searching and booking tours, it is worth highlighting "IT-tour" – it is a fairly convenient and easy-to-use tool that allows you to search and book the most desirable offer for a tourist. The system allows you to check tours for relevance, availability of seats on charter flights of all the largest tour operators of Ukraine in real time. The Ayty-tour system is aimed at the Ukrainian travel agent and is the best domestic system for searching and booking tours in Ukraine. The system interface is very simple and does not require special personnel training. Currently, the issue of connecting to global computer reservation systems remains relevant for some travel firms. The decision to connect should be made on the basis of an analysis of the main functions and tasks of a specific tourist enterprise, as well as taking into account the number of reservations made by the enterprise. Today, even small tourism enterprises have their own website, which is a necessary condition for the functioning of the business. Conventionally, the websites of Ukrainian tourism enterprises can be divided into three groups (Table 1).

Table 1. Types of websites of Ukrainian tourism enterprises³⁵⁹

№	Characteristics of the website	Example of Ukrainian travel agencies
1.	The first and most numerous group are information resources, which are, at best, complete electronic versions of operator catalogs and which support the reception of booking applications in the off-line mode. This group also includes travel portals.	Otpusk.com Network of shops of hot vouchers Patriot San Tur Mix Tour
2.	Sites of the most popular Ukrainian tour operators that have the function of booking tours. If you analyze the main sections ("about us", "contacts", "description of countries", "our tours") of these sites, you can note that 90% of them are the same for all tour operators.	Pegas Touristik Turtess "Travel extravaganza" by Teztour Idriska-tour Anex Tour
3.	The very small third group includes firms that are users of GRS or partners of large foreign mega-operators	Destination of «Cara» Class-tour

Usually, the use of global computer systems at Ukrainian travel firms is reduced either to the booking and sale of airline tickets, or to the booking of individual travel services as part of individual tours. In the first option, the choice of the reservation system to which it is appropriate for the company to connect is reduced to the analysis of the volume of air ticket sales by destinations and airlines. Based on this, a system and an airline are chosen, using which tourist services are implemented as much as possible.

³⁵⁹ Management of innovative activity of tourism business enterprises.

Websites of tourist enterprises post information about the enterprise itself, as well as about the range of services. Although most of the sites of domestic tourism enterprises are limited to informational materials only and do not allow customers to buy tours online. In addition to informing, booking and selling tours, websites of tourist companies form an image, maintain contact with visitors, and provide an opportunity to conduct various surveys.

Mostly, the websites of travel operators are functionally developed by an average of 66.3%. Such tourism enterprises as "Tourist firm "SAM", "Teztur" LLC, "Coral Travel" LLC and "Arktur" LLC have high indicators of website functionality.

Among travel agencies, the average website functionality score is 57.1%, which is significantly lower compared to tour operators. One of the most optimal options for improving the management decision-making process at tourist enterprises is the introduction of a CRM system. CRM (from the English Customer Relationship Management) is software that includes a fairly wide range of additional functions.

The purpose of the system implementation is to help enterprises organize data and effectively communicate with customers, automate sales, marketing and support services, as well as to manage personnel and travel service providers.

The benefits of using a CRM system in a tourism enterprise can be grouped into three groups: cost reduction, sales increase, and strategic impact on the enterprise.

The following are the most popular CRM systems on the Ukrainian market (Table 2).

Table 2. TOP-5 CRM systems for the domestic tourist market³⁶⁰

№	Name	Brief description
1.	The Bitrix24	CRM system provides: a single customer base, own analytics, management control, IP telephony, reminders, automatic lead generation
2.	CRM Tour	The program was developed by the Ukrainian web studio Studio-Z in 2016. Along with the ability to manage the client base and the client request database, this CRM system includes integration with the MailChimp mailing service, the ability to display payments by managers, the ability to independently create printed forms and set reminders. The program also has a reporting tool.
3.	MyTourists	CRM system for travel agencies that has been on the travel business software market since 2012. With the help of the "MyTourists" CRM system, travel agencies can keep records of customers and applications, create various reminders, report and statistics according to various parameters, perform calculations bonuses for employees, work with the sales line, organize mailings and SMS-distributions, use IP telephony, work with orders from the site, create micro-accounts for tourists, etc.
4.	Megaplan	System helps to increase sales, manage employees and work remotely. Included: CRM, invoicing, transaction control, task manager, file server, internal mail, forum, HR module.
5.	amoCRM	Easy-to-use CRM system. Allows you to keep a database of contacts and accounting of transactions (linked to contacts). Contacts and deals can be tagged. Based on the amount and status of transactions, a sales funnel is formed. Ability to add fields to deal cards. Integration with MailChimp.

The latest technological advances used by domestic tourism enterprises are presented in Table 3.

Disadvantages of the system are the large expenditure of time to choose the most appropriate CRM system and personnel training, as well as financial costs.

Due to its unique capabilities, a properly selected CRM system will ensure seamless interaction with customers and increase the efficiency of the tourism manager by at least 20-30%.

So, the market of tourist services developed dynamically until the orcs came to our land, even despite the global pandemic, the cancellation of air travel and the closing of borders. But crisis is the engine of progress and innovation.

Unfortunately, domestic tourism companies lag far behind foreign companies in terms of introducing innovations. For example, a small number of tourist enterprises use computer reservation systems in their activities, while they entered the international market as early

³⁶⁰ Ibidem.

as the 1980s. Also, many travel firms work with CRM systems that are unable to automate the work of a modern travel enterprise, and the websites of some travel enterprises do not satisfy users with their interface, informativeness, and functionality.

Table 3. Innovative technologies in the tourist market of Ukraine³⁶¹

№	The essence of the innovation		Name of the enterprise
1.	The system of voluntary registration of Ukrainian citizens traveling abroad ("FRIEND") is an effective tool for prevention, if necessary, for searching and providing assistance to citizens of Ukraine in case of emergencies abroad.	2018 2018 2020 2020 2020	"Accord Tour" LLC "Travel Professional Group" LLC "Tez Tour" LLC "Gamaliya" LLC TA "Ocean Tour"
2.	Coral + is an instant booking system. Advantages of Coral+: - booking air tickets for regular flights around the world; - possibility of booking 24 hours a day; - reservation of air tickets for budget carriers.	2018	Coral Travel LLC (the company also provides access to use the system for small agencies)
3.	Maintaining a channel in the Telegram messenger, where you can publish information about tours, countries, news in the tourism sector and promotional offers. This channel performs an informational function and at the same time is an additional sales tool.	2018 2017 2020 2018 2018 2020 2018	Annex Tour Join Up Sea of Tours Extravaganza Tez Tour A taste of adventure Went with us
4.	The Ukrainian Internet hypermarket "Rozetka" has launched a virtual travel agency Rozetka.travel. This is an online service that allows you to book and pay for a tour via the Internet. Rozetka Travel allows you to buy a tour without visiting a travel agency – completely via the Internet. The purchase process, according to the developers, takes a few clicks.	2019	Anex Tour, TUI, Tez Tour, Pegas Touristik, Mouzenidis Travel and others are already connected to the aggregator
5.	"Samo-Tour" CRM system is a comprehensive automation system for a tour operator. The program serves as a single platform for solving absolutely all company tasks: product creation and management, order management, optimization of online sales. There are separate extensions for tour operators, travel agents and excursion companies.	2021	Pegas Touristik Join Up Royal Voyage, AMIGO-TOUR, Idriska Tour Kiy Avia Feeriya and other 163 tourist companies

The future of tourism is based on chatbots, blockchain technologies, artificial intelligence and the Internet of Things. This future is already being implemented in the international tourism market, and it is extremely important for Ukraine to keep up with these innovative technologies.

The changing realities of the innovation space of the functioning of tourism enterprises put forward new requirements for determining the status of tourism enterprises depending on the assessment of innovation potential.

Based on the generalization and systematization of existing scientific approaches to the typification of tourist enterprises, we considered three forms of their functioning:

- tourist operators (tour operators) – "legal entities created in accordance with the legislation of Ukraine, for which the exclusive activity is the organization and provision of the creation of a tourist product, the implementation and provision of tourist services, as well as intermediary activities for the provision of characteristic and related services and which in the established order received a license for tour operator activity";

- the tourist enterprise "offers a diverse range of services for the organization of domestic and international trips; forms packages of services of direct producers into a complex standard tourist product, which is sold at a specified price";

³⁶¹ Analysis of innovative development of domestic tourism enterprises in the Ukrainian market.
Tour operator «Join Up».
Tour operator «Anex Tour».
Tour operator «TPG».

- travel agency (travel agency) – "legal entities created in accordance with the legislation of Ukraine, as well as natural persons – subjects of entrepreneurial activity, which carry out intermediary activities for the sale of tourist products of tour operators and tourist services of other entities of tourist activity, as well as intermediary activities related to the implementation of related services";

- travel and excursion bureau – "organizes tours, transtours and excursions".

The general characteristics of the proposed forms of tourist enterprises are presented in Table 4.

Table 4. General characteristics of forms of activity of tourist enterprises³⁶²

Characteristic criterion	Form of tourist enterprise		
	Tour operator (TO)	Travel agency (TA)	Bureau of Travel and Excursions (BPE)
Form of sale of tourist product	Wholesale	Retail	Retail
Functions	Marketing Forming Organizational Price Forming Sales Function of interaction	Intermediary Marketing Sales Informative Consultative Advisory	Marketing Organizational Sales Informative Educational
The range of tourist products	Wide	Wide	Narrow
The minimum amount of financial support	20000 euro	2000 euro	-
Licensing	Mandatory	Optional	Optional
Number in Ukraine, 2021 (there was a significant decrease due to COVID-19)	498 units	1172 units	73 units
Income from the provision of tourist services, 2021	17917371,6 thous.hryvnias	552130 thous.hryvnias	33473,7 thous.hryvnias
Operating expenses for the provision of tourist services, 2021	14263972 thous.hryvnias	611592 thous.hryvnias	25387,3 thous.hryvnias

According to the characteristics of tourist enterprises, tour operators, as subjects of the tourist market, perform a number of functions that lead to the formation and wholesale sale of a wide range of tourist products; the activity of tour operators is regulated by the Law of Ukraine "On Tourism", the activity of these enterprises requires licensing and the presence of a minimum amount of financial support of 20,000 euros; these enterprises have significant economic indicators of activity (cost return on average is 14.17).

The most widespread subjects of the tourist market are travel agencies (1,172 enterprises), which act as intermediaries between tour operators and consumers, they are engaged in the retail sale of tourist products; the minimum amount of financial support is 2,000 euros.

Another subject of the tourism market is the travel and excursion bureau (travel agency, excursion bureau), this is the least developed sector of the tourism market, but under certain conditions these enterprises can develop intensively in recreationally attractive regions of the country.

24 tourist enterprises of Ukraine (12 tour operators; 8 travel agencies; 4 travel and excursion bureaus) were selected for the study of innovative potential. In the course of the study, differentiation of a sample population of tourist enterprises was carried out according to four types of innovative behavior by means of clustering, and it provides for the grouping of enterprises according to the degree of activity of their actions in innovative processes into expletives, violent ones, patients and commuters.

To identify the type of innovative behavior of tourism enterprises, we chose a scale that is a universal means of standardizing the values of the proposed evaluation criteria and allows to set the appropriate rank of the criterion in the range from 1 to 4 points, where 4 points correspond to the maximum possible value, and 1 point to the minimum.³⁶³

Table 5 shows eight assessment criteria that identified four types of innovative behavior of tourism enterprises.

³⁶² The State Fixed Service named the number of travel companies in Ukraine.

³⁶³ Analysis of innovative development of domestic tourism enterprises in the Ukrainian market.

Table 5. The scale of criteria for evaluating the type of innovative behavior tourist enterprises³⁶⁴

№	Evaluation criteria	Evaluation in points			
		1	2	3	4
1.	The enterprise's readiness for innovation (IGP)	Low	Insufficient	Medium	High
2.	The attitude of the enterprise to innovations (IVP)	Conservative	Innovator follower	Innovator challenger	Innovator leader
3.	Intensity of innovation (II)	Fading	Cyclic	Rising	High
4.	Scope of application of innovations (IS)	Point innovations	Only product innovations	Separate areas of the enterprise	All areas of the enterprise
5.	Adequacy of funding for innovation (DFI)	Low	Average	Above average	High
6.	Informational support for innovations (ISI)	Low	Average	Above average	High
7.	Resource provision of innovations (RPI)	Not applicable	Partially applied	Separate resources apply	An optimal set of resources is used
8.	Results of diffusion of innovations (RDI)	Insignificant effect	Episodic effect	Systematic economic and social effect	Significant economic and social effect

According to the data in Table 5, ranges of average values (I) characterizing different types of innovative behavior of a tourist enterprise were established for commuters – $0 < I \leq 2,3$, patients – $2,3 < I \leq 3$, violent – $3 < I \leq 3,4$ and expletives – $3,4 < I \leq 4$.

Estimates of the innovative behavior of tourist enterprises of various forms are shown in Table 6.

Table 6. Evaluation of the type of innovative behavior of tourist enterprises³⁶⁵

	Tourist enterprise	Average score according to the criteria of innovative behavior								Average value
		IGP	IVP	II	IS	DFI	ISI	RPI	RDI	
1.	"Travel Professional Group"	3,7	3,6	2,7	3,8	3,7	3,8	2,8	3,2	3,41
2.	"Tez Tour"	3,9	3,8	2,1	3,5	2,4	3,1	3,6	2,7	3,13
3.	"Accord Tour"	3,8	3,8	2,8	3,6	3,4	3,9	3,5	2,2	3,38
4.	"Gamaliya"	2,6	2,8	3,6	3,3	3,4	2,7	2,9	3,5	3,10
5.	"Krasin Tour"	1,8	2,6	1,8	3,1	1,8	2,7	2,2	1,9	2,24
6.	"Join Up"	4	3,2	2,9	3,5	3,8	3,8	3,5	2,8	3,44
7.	"Sputnik"	3,2	3,8	2,4	2,6	2,7	2,6	3,3	3,2	2,98
8.	"Albiz-tour"	3,6	3,4	3,3	3,7	3,1	2,6	2,6	3,4	3,21
9.	"Alliance"	2,1	2,6	2,5	3,5	3,4	3,14	2,1	1,8	2,88
10.	"Travelsvit"	3,1	2,5	2,9	3,4	3,2	2,8	2,6	2,73	2,96
11.	"Tourist company "Annex Tour"	3,2	3,7	2,4	2,3	2,7	2,4	3,2	2,7	2,83
12.	"Party Travel"	2,6	1,6	1,8	2,2	2,3	3,2	2,1	2,4	2,28
13.	"Come with us"	1,7	1,6	1,8	2,6	2,4	2,53	2,4	2,2	2,31
14.	"Sturval Plus"	2,5	3,3	3,4	3,6	3,4	2,6	2,2	3,2	3,03
15.	"Zhara"	2,1	2,6	2,3	2,5	2,2	1,6	1,8	2,1	2,24
16.	"Ocean Tour"	2,4	2,3	2,6	3,6	3,7	2,6	3,6	3,4	3,03
17.	"Lucky Ticket"	3,6	3,4	3,2	3,54	3,6	3,5	3,8	3,2	3,53
18.	"Sturman"	2,6	2,5	2,4	2,2	3,1	3,6	2,6	3,4	2,80
19.	"Horizon Tour"	2,3	1,6	1,8	1,5	2,1	2,6	2,4	2,4	2,09
20.	"New horizons"	3,3	2,6	2,4	2,2	2,4	2,1	1,6	1,7	2,29
21.	Kyiv Bureau of Travel and Excursions	3,1	3,5	2,9	3,8	3,4	3,2	2,6	1,9	3,05
22.	Chernihiv Bureau of Travel and Excursions	1,3	1,4	1,6	1,5	2,6	2,8	2,6	2,1	1,99
23.	Zaporizhzhia Travel and Excursion Bureau	1,6	1,4	1,5	2,3	2,1	2,2	1,9	1,4	1,80
24.	Vinnitsia Bureau of Travel and Excursions	2,1	2,3	3,2	2,4	3,1	2,6	2,4	1,3	2,43

³⁶⁴ Ibidem.

³⁶⁵ The current state of the tourist market of Ukraine.

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ANNOTATION

Part 1. INFORMATION AND INNOVATIVE TECHNOLOGIES IN THE SYSTEM OF VOCATIONAL EDUCATION

1.1. Nataliia Danylevych, Svetlana Rudakova, Liudmyla Shchetinina, Oksana Poplavska. DIRECTIONS FOR IMPROVING THE ORGANIZATION OF THE EDUCATIONAL PROCESS IN THE CONDITIONS OF DIGITAL TRANSFORMATION

The article is dedicated to the highly relevant problem of distance education. The article presents the results of a study of the problems which arise with the introduction of remote technologies into the educational process in higher educational institutions. The authors considered the organization of the educational process during the coronavirus pandemic in the conditions of digital transformation, analyzed the positive and negative aspects of distance learning. The results of the sociological survey of university students became the empirical basis of the study. The existing difficulties of the usage of distance learning technologies in higher education faced by teachers and students in the communicative, educational, motivational, organizational and technical process are specified.

1.2. Sofiia Dembitska, Olha Kuzmenko, Maryna Miastkovska. IMPROVEMENT OF THE ORGANIZATION OF SCIENTIFIC AND RESEARCH WORK OF STUDENTS OF TECHNICAL SPECIALTIES IN THE CONDITIONS OF INNOVATIVE DEVELOPMENT OF HIGHER EDUCATION

The article examines the peculiarities of the organization of research work of students of higher education as one of the important components of the professional characteristics of a future specialist. The problem of ensuring the management of students' research work is singled out. The prospects of perfecting its management, in particular, as a means of expanding the opportunities for self-realization of the future specialist, mobilizing his potential, have been determined. The interpretation of the concept of «scientific and research activity of students» in institutions of higher education has been improved. The necessity of using the latest methods for the organization of research activities of higher education applicants is substantiated. The author's model of management of research work of students of technical specialties in the conditions of innovative development of higher education is proposed. Prospects for further scientific exploration have been determined.

1.3. Annaguly Deryaev. FIXING OF DIRECTIONAL WELLS FOR DEVELOPMENT BY A METHOD DUAL COMPLETION

The monograph examines the issues of fastening, depth of descent, cementing, directional wells, for development by the method of dual completion (DC). The depth of descent of each casing string is specified in such a way that its lower end is in the range of stable weakly permeable rocks, and that it completely overlaps the intervals of weak rocks in which hydraulic fracturing can occur when opening zones with abnormally high reservoir pressure in the underlying interval.

The casing string should be lowered into the inclined well as quickly as possible. To do this, it is recommended that during the preparation of the well for mounting, assemble part of the column into the knees and install them behind the finger in the drilling rig.

During cementing, a high hydrodynamic pressure is created in the productive formation, which ensures the penetration of cement mortar into the pores and cracks of the productive formation and often leads to hydraulic fracturing of the formation, followed by the withdrawal of significant volumes of cement mortar into it, as indicated by cases of under-lifting of cement mortar to the calculated level. That is why a very important task when cementing an operational column is to reduce the hydrodynamic pressure of the cement mortar on the productive formation and, if possible, completely eliminate the contact of the cement mortar with the productive formation. Such work will be useful to specialists in the field of oil and gas.

1.4. Dmitriy Kostiuk, Anastasia Markina. INTERACTIVE LEARNING AND THE ERGONOMICS OF HUMAN-MACHINE INTERACTION

The experience of teaching the ergonomics of the "human-machine" interface for students of computer science and radio electronics is presented. Increased interactivity is achieved through elements embedded in teaching materials through virtualization. Practical study of usability express-testing based on self-reported parameters and biometric approaches is discussed.

1.5. Andrii Lagun, Nataliia Kukharska. ANALYSIS THE EDUCATIONAL PROGRAM FOR TRAINING COMPUTER SCIENCES SPECIALISTS DEVELOPED BY THE INFORMATION SYSTEMS AND TECHNOLOGIES DEPARTMENT OF LVIV POLYTECHNIC NATIONAL UNIVERSITY

In this monograph is carried out the study of education methods for students majoring in speciality "Computer Sciences" at the Lviv Polytechnic National University. Part of the work is devoted to the review of existing educational programs in the field of knowledge "Information technologies", which are successfully used nowadays. The considered educational program was developed by the working group of the Information systems and technologies department of educational and scientific institute of Enterprise and Advanced Technologies. After completing the training by this educational program, specialists can work in IT companies and at any enterprises that develop and use computer technologies and computer equipment. Also was carried out an analysis of the general and professional competencies for future specialists. In particular were noted two possible specializations of trained specialists namely the development of application software and programming of cyber-physical systems components.

1.6. Vasyl Andriiashko. FROM HISTORY OF DEVELOPMENT TEXTILES OF THE KYIV REGION

On the basis of the literary sources available to the author of the article, the main milestones of the development of artistic textiles of the Kyiv region are considered. Textiles on the territory of modern Ukraine existed in all historical periods, starting with the Trypil culture, as evidenced by the impressions on the bottoms of ceramic dishes found during archaeological excavations. During the times of Kyivan Rus, in addition to simple linen weaving, there was a patterned weaving and a bump on the fabric, where the pattern was applied with the help of paint and stamps cut out of wood. Textiles acquired development even after the Tatar-Mongol oppression in the times when the Kyiv lands were under the rule of the Grand Duchy of Lithuania.

In the 17th and 18th centuries. silk manufactories were developed in Kyiv itself, where, in addition to breeding cocoons, silk fabrics were made. In the mid-19th to the first half of the 20th centuries, textiles became widely developed in the Kyiv region. In 1906, the Kyiv Artisan Society was created to intensify the development of textile and other industries.

Textiles gained further development after the establishment of Soviet power in Ukraine. In the 1930s, weaving centers worked in Bohuslav, Pereyaslav, and Tarascha. In the post-war period, textile mills came into operation in Kyiv – the Darnytsky Silk Mill, which produced fabrics from synthetic fibers, and the Kyiv Silk Mill, which produced natural silk fabrics.

1.7. Lyudmila Bazyl, Valery Orlov. INNOVATIVE CONSULTING TECHNOLOGIES FOR YOUTH ENTREPRENEURSHIP IN THE PROFESSIONAL EDUCATION SYSTEM

The use of entrepreneurial talents of young people and the easing of restrictions on the labor market are vital mechanisms for creating jobs and inclusive growth of the number of people involved in the process of entrepreneurial activity, increasing the degree of participation of all citizens in the economic development of the country. Meeting the individual needs of graduates of professional education institutions in personal development and career growth, as well as expanding their rights and opportunities, should become a priority in Ukraine, as it is the case in the countries of the European Union and declared by the United Nations. Effective entrepreneurial education is the key to expanding the potential of youth entrepreneurship.

1.8. Olena Balukhtina. SOCIOLOGICAL RESEARCH OF PROBLEMS OF DISTANCE LEARNING IN UKRAINE

Modern sociology studies the transformation of education in society in the context of the requirements and opportunities of the XXI century. In Ukraine, many analytical centers help in this research process. The purpose of our scientific research is to analyze the problems of distance learning for 2020-2022, conducted in Ukraine by the Foundation "Democratic Initiatives named after I. Kucheriva" and CEDOS. The positive and negative aspects of distance learning during the COVID-19 pandemic are clarified. Recommendations on increasing the effectiveness of distance learning in wartime are presented. The conducted research contributes to the awareness of the importance of this form of education, the growth of its popularity, outlines its new possibilities and prospects in today's realities.

1.9. Natalya Grabar. SERVICE-ACTIVITY TRANSFORMATION OF COMMUNICATION IN THE FUNCTIONING OF THE INFORMATION AND COGNITIVE MARKET OF SERVICES CONDITIONS

In the education system, the phenomenon of communication is of particular importance, since it realizes the goals of informing, teaching. With the advent of virtual educational institutions, the openness of the education system through distance education is more clearly manifested. Distance learning provides opportunities for a variety of communication. The focus is on the effectiveness of the modern digital technologies use in the educational process. The importance of services is noted, with the help of mobile devices, which, in the conditions of forced evacuation and relocation to safer places, have become the only form of communication. Media education, implemented using information and communication technologies, is gaining significant influence and aims to teach the student how to use them and organize the process of self-education. A significant role in this is played by the library of the educational institution.

1.10. Katerina Vasuk. THE PARTICULARITIES OF DIGITALIZATION OF EDUCATION IN DIFFERENT COUNTRIES

The article deals with the concept of distance learning and process of digitalization, realizes the comparing of it in Ukraine and different countries, which have the experience of using, in particular with regard to the student's digital literacy. Based on theoretical analysis of the regulatory documents and statistic we've analysed the effectivity of distance learning and described its advantages and disadvantages. There is also the classification of the different forms and of distance learning, which are used in the high education. The article also deals with the idea of Digital Campus, what was implemented in some universities of Ukraine.

1.11. Yuliana Irkhina, Sabina Radzhabova, Hanna Varina. THE MODERN DIGITAL SERVICES AND TOOLS FOR THE STUDY OF PSYCHOLOGICAL AND PEDAGOGICAL DISCIPLINES IN A HIGH PROFESSIONAL SCHOOL

The article deals with the importance of possessing modern information and communication technologies, digital services and tools in the context of the digitalization of the economy, society, and education by both a teacher and a student, a future specialist. The requirements for the teacher's knowledge and skills in the field of information and communication technologies are revealed, some digital services and tools are described, which are appropriate to use in the process of studying psychological and pedagogical disciplines.

It has been convincingly proven that the use of modern digital tools, interactive learning technologies, opens wide prospects for deepening the theoretical knowledge base, strengthens the motivational orientation of students to study academic disciplines, in particular, psychology and pedagogy, provides mastery of personality self-development skills, opportunities to think, creatively develop, construct new.

1.12. Halyna Oliinyk, Alla Rubanka, Ivan Frolov, Olena Herasymenko. DIRECTIONS OF USING DIGITAL TECHNOLOGIES IN THE TRAINING OF SPECIALISTS IN THE FIELD OF DESIGN AND PLANNING

The article reveals the problem of using digital technologies in the future specialists professional training in the field of design and projecting with the modern digital technologies usage, in the conditions of the informational educational environment of higher education institutions. The concepts "digital technologies" and "digital literacy" were revealed, and it was established that they are a tool that's actively used in education and contributes to the improvement of its quality. The most common online services for visualizing educational material in the educational process were considered.

1.13. Oleksandr Radkevych. MOBILE DEVICES AS A MEANS OF ASSESSING LEARNING OUTCOMES

The relevance of the use of mobile devices in learning and assessment of learning outcomes is revealed. The features of the use of mobile devices as a means of visualizing learning material, expanding distance learning opportunities, tests and surveys are substantiated. Programs for mobile learning and testing (simple, allowing teachers to put students subjective scores; complex, which do not involve teachers in assessing learning outcomes) are characterized. Technically advanced types of mobile applications – location-based mobile learning systems – are highlighted.

1.14. Julia Ribtsun. NEUROPSYCHOLOGICAL APPROACH IN WORKING WITH CHILDREN WITH STUTTERING. OVERCOMING PSYCHOLOGICAL TRAUMA CAUSED BY MILITARY ACTIONS

The article analyzes the speech, psychophysiological, personal difficulties of children with tempo-rhythmic speech disorders. Considerable attention paid to the peculiarities of the impact of psychological trauma on children with stuttering due to of hostilities. The functional blocks of the brain (according to A. Luria) analyzed through the prism of stressful situations caused by war. For each of the three functional blocks of the brain, methodological recommendations and game exercises are proposed that can be used both by parents of children with tempo-rhythmic speech disorders during family education and upbringing, and by teachers (speech therapists, practical psychologists, educators, primary school teachers, inclusive resource centers).

1.15. Maria Samarska, Artem Ponomarev. DEVELOPMENT OF COMMUNICATIVE SKILLS OF JUNIOR SCHOOLCHILDREN BY MEANS OF EPISTOLAR GENRE

The relevance of the study of the peculiarities of the development of communication skills of primary school students is due to the need for socialization and the formation of a comprehensive and harmoniously developed personality, able to successfully interact with other people. The essence of the key concepts of this problem in the context of finding effective ways to solve it is revealed. The epistolary heritage of Ukrainian and foreign writers as a means of forming communicative skills of junior schoolchildren in extracurricular activities is analyzed. As a result of diagnostics the insufficient level of formation of communicative skills of pupils of elementary school at the first stage of formative experiment is defined. A number of letters of different types and directions were developed, which were introduced in the formative process with students in extracurricular activities. Approbation of the developed forms and methods of work has shown their efficiency and high efficiency. Thus, as a result of the formative experiment, it was concluded that the introduction of elements of the epistolary genre in the work with primary school students contributes to a more effective formation of communication skills.

1.16. Iryna Sundukova. CORRECTION OF MENTAL STATES OF STUDENTS BY MEANS OF PHYSICAL EDUCATION

The article analyses scientific data on the essence of mental states and the prerequisites for their occurrence in the educational activities of students of higher education institutions, defines the means and methods of correcting negative mental states, the main of which is regulation using the hatha yoga system and the Qigong health system. The possibilities of the means of physical culture for the normalization of mental states are highlighted, which contributes to the assimilation of the valuable function of physical culture, the formation of motor culture and sustainable motivation for systematic physical exercises.

1.17. Yuri Tarasenko, Viktoriia Klym. FORMATION OF THE ANTI-PLAGIARISM OUTLOOK IN THE EDUCATIONAL SPHERE OF SOCIETY

The priorities of the formation of cognitive activity from the standpoint of the effectiveness of the educational process without academic plagiarism are presented. The analysis of the semantic ambiguity of the terms compilation, plagiarism and integrity, incompatible with manifestations of bribery and kleptomania, is carried out. Ways to protect the educational sphere from various addictions are indicated.

1.18. Lesia Uhryn. USING THE PROJECT LEARNING IN THE TRAINING OF IT SPECIALISTS

Increasing the qualification level of IT market specialists is relevant and in demand today. Training a high-quality specialist is not an easy task, since not only software and hardware, but also technologies and methodologies in solving the tasks are changing quite quickly. Accordingly, it is also necessary to change approaches to the training of IT specialists. A significant number of ideas and approaches to the organization of work that are currently used in IT companies can be used in the educational process, thereby closing the gap between university education and future professional activity. Educational programs must take into account the dynamics of development and be updated in proportion to the updating of the IT industry, using modern competence and comprehensive approaches. At the same time, they should prepare the student to independently make decisions and acquire the knowledge necessary for the successful implementation of the project. The research in the work is devoted to project-oriented learning, in particular, the use of scrum technology.

1.19. Leonid Tsubov, Oksana Kalinska, Olha Tsubova. INNOVATIVE PEDAGOGICAL TECHNOLOGIES FOR THE DEVELOPMENT OF PEDAGOGICAL SKILLS OF AN EDUCATIONAL INSTITUTION TEACHER IN THE SYSTEM OF DEPARTMENT METHODOLOGICAL WORK

The article highlights the issue of the introduction of innovative pedagogical technologies as a way to form pedagogical skills and professionalism of the teacher of an educational institution in the system of methodical work of the department. It was considered the problem of developing the teacher's pedagogical skill in the context of using modern innovative educational and pedagogical technologies. Innovative educational and pedagogical technologies that are actively used in the pedagogical process of a teacher at an educational institution are described.

It was determined that the active implementation and use of innovative educational and pedagogical technologies by teachers of educational institutions in the educational process effectively contributes to the development and training of qualified personnel who are competitive in the labor market, capable of creative work, professional development, mastering and implementing science-intensive and information technologies.

1.20. Anna Chobanian, Alla Kolyshkina, Oleksandr Kolyshkin, Svitlana Kondratiuk. DEVELOPMENT OF A MODEL OF THE COMPETENCE OF PARENTS OF OLDER PRESCHOOL CHILDREN WITH INTELLECTUAL DISABILITIES

The authors carried out a study of the definition of the competence of parents of children with intellectual developmental disabilities of a moderate degree. Unlike children with typical development, on whom the influence of the family weakens with age, and upon reaching adulthood, the role of the family significantly decreases in the aspect of making independent decisions about determining their own life path, for children with intellectual development disorders, the role of the family significantly increases with age does not change, but on the contrary – increases. In this regard, the development of the competence of their parents becomes important. In the aspect of the mentioned question, an experimental model was developed for the diagnosis and development of competence of parents of older preschool children with intellectual developmental disorders of a moderate degree. The main attention is paid to the technology of conducting socio-psychological training on the development of competence of parents of children of the specified category.

1.21. Olha Shevchenko. TRAINING OF FUTURE TEACHERS OF PHYSICAL CULTURE BY MEANS OF HEALTH TECHNOLOGIES

The article examines the issue of training future teachers of physical culture by means of health technologies. It was found that the professional formation of future physical culture teachers is connected with the formation of a healthy lifestyle of the younger generation. It was determined that the basis of health care pedagogy is based on conceptual ideas about a set of harmonious intellectual and physical development and self-development of an individual physically capable of self-creation, which is supported by systematic physical exercises and a system of forming health-preserving life principles. It has been proven that the formation of pedagogical competences affects the creative development and professional growth of students, and a systematic and planned approach to innovations contributes to their development. The professionalization of the future physical culture teacher requires creative self-determination, without which it is impossible to ensure the quality of education.

1.22. Olha Shchetyynina, Larysa Horbatiuk, Ganna Aliksieieva, Nataliia Kravchenko. IMPLEMENTATION OF THE KANBAN METHODOLOGY IN THE TEACHING OF WEB TECHNOLOGIES FOR SENIOR STUDENTS

The implementation of Kanban project management method in the teaching of web technologies to senior students is discussed. It was pointed out that there are common approaches to project management and educational process management. Online systems for teamwork that support Kanban methodologies for project management have been analyzed. The model of interaction between the subjects of learning in the Trello project management system is developed. A virtual canban-board for informatics (Web Technology module) in the Trello system is developed and the experience of its use in the teaching process is described. The study can be useful for educational institutions interested in using agile methods in teaching.

Part 2. INFORMATION AND INNOVATIVE TECHNOLOGIES FOR SOLVING ECONOMIC AND SOCIAL PROBLEMS

2.1. Iryna Farynovych, Oksana Knyshek. PROFESSIONAL COMPETENCE OF THE HEAD OF A HEALTHCARE FACILITY AS A FACTOR OF ENSURING EFFICIENT MANAGEMENT

The article summarizes the theoretical ideas of scientists about the essence of the concepts of competence and competency. The main components of competence are defined. A scheme for the assessment and development of professional competencies of the management staff of the health care institution has been created. It was found that the professional competence of the head of a medical institution depends on its effective management. The article describes the requirements for a modern health care facility manager. It is substantiated that the main task of the head of a medical institution is to increase economic, social and medical efficiency. The ultimate task of the manager is to achieve high quality of medical services. The article substantiates the relationship between the professional competence of the heads of medical institutions and their effective management activities. The directions for increasing the efficiency of management activities of medical institutions and the ways of their implementation are described.

2.2. Leonid Gerganov. VOCATIONAL EDUCATION OF MARITIME WORKERS IN TRAINING CENTERS OF SHIPPING COMPANIES UNDER MARTIAL LAW IN UKRAINE

The article deals with the problem of vocational training of future sailors in the conditions of martial law in training centres of shipping companies, by creating a professional environment close to the performance of professional actions in wartime situations, has professional flexibility in conditions of dynamic changes in the labour market, takes into account individual characteristics employees to master their future profession, the need for their professional development and adaptation to work on modern ships in new socio-economic and external conditions. The results of this vocational training should predict the probable consequences of each of the decisions made by a seafarer at his workplace that pose a real threat to the lives of people and the safety of cargo.

2.3. Liliia Grynash, Khrystyna Gorbova, Iryna Yaremchuk. PECULIARITIES OF THE RELATIONSHIP BETWEEN INNOVATIVE DEVELOPMENT AND CAPITALIZATION OF THE ENTERPRISE FORMED ON THE CONCESSION

The purpose of the study is to determine the essence of the concept of concession, as well as the connections between innovative activity and the capitalization of such an enterprise. The methods of determining the economic efficiency of investment and innovation projects, in particular the "net present value" method, are substantiated. It is proposed to use the method of "determining the overall efficiency of capital investments" to determine the increase in economic efficiency, and a scheme for taking into account the most important factors affecting capitalization has been developed.

2.4. Lev Kloba, Nazar Dobosh, Pavlo Goryslavets. EFFECTIVE BANKING INVESTMENT ACTIVITY – THE KEY TO ECONOMIC DEVELOPMENT OF UKRAINE

The article reveals the essence of the investment of the bank and determines the sources of formation of bank investment resources by their reliability and sustainability. The authors analysed external and internal factors of investment climate and determined that the main factor of its formation is the state regulation of investment activity of business entities. In the process of the research the recommendations for effective use of the mechanism of providing state guarantees to investors in the national economy of Ukraine are also presented. According to the authors, creating a favourable investment climate will increase investor activity and increase capital flow, as well as reduce the risk of non-repayment of investment funds for investors. This will help to improve the quality of the investment climate that will form the investment attractiveness of both the country as a whole and its individual regions.

2.5. Tetiana Lysiuk. INNOVATIONS IN TOURISM

It was analyzed which tourist enterprises are the most innovative and, as a result, competitive in the tourist market.

An expert-evaluative analysis of the trends in the implementation of innovations by tourism enterprises was carried out, which makes it possible to assert the readiness of the domestic tourism market for the introduction of the latest technologies, such as chatbots, blockchain technologies, artificial intelligence and the Internet of Things.

It is argued that the economic situation in the country, the social condition of the population, national legislation, as well as intergovernmental and international agreements affect the implementation of innovations in tourism.

2.6. Tetyana Nestorenko, Oksana Sterniyuk. MODERN MANAGEMENT MODELS OF HIGHER EDUCATION INSTITUTIONS

The main groups of models of higher education systems are considered in the article. It is substantiated that the effectiveness of the university's activity, the degree of ability to quickly make current and strategic decisions depends on the model of the higher education system in force in the country (liberal or post-administrative type). The article analyses the main differences of models in a higher education system. The main elements of the university management system are defined. Peculiarities and results of reforms in the sphere of higher education in Poland and Slovakia are studied. The role of successful international accreditation in ensuring continuous quality improvement in universities is analysed.

2.7. Olena Tsyplitska. TECHNOLOGY TRANSFER AS A STRATEGIC PRIORITY OF INDUSTRIAL DEVELOPMENT: GERMANY'S EXPERIENCE

The study discloses the peculiarities of technology transfer organization in Germany for achieving high levels of industrial and technological development. On the example of Julius-Maximilians-University of Würzburg the characteristics of the technology transfer center's operations are considered, in particular the process from invention to exploitation of the scientific development. The data on the effectiveness of German technology transfer system are performed. The recommendations for the Ukraine regarding the Germany experience implementation are presented.

2.8. Olha Vladymyr. "MARSHALL PLAN-2" – EXPECTATIONS AND OPPORTUNITIES FOR UKRAINE AND THE WORLD

The historical background and features of the implementation of the Marshall Plan are examined in the article. The main goals and results of the implementation of the Marshall Plan for the USA, the countries of Western Europe and the world in general are outlined. Its role in the transformation of economic and political processes in the world is emphasized. The article reveals the main ideas and proposals regarding the implementation of the Marshall Plan for Ukraine. The need for collective protection of Ukraine and European countries from terrorist aggression by the Russian Federation was emphasized. The proposals of the government of Ukraine regarding the development of the Marshall Plan for the recovery of the country, proposed at the meeting in Lugano (Switzerland), were considered. The need to show the primary initiative of Ukrainians for the development and implementation of various projects for the reconstruction of the country was emphasized. Mutual benefit from the implementation of the Marshall Plan for Ukraine, Europe and the world was emphasized.

2.9. Alexander Volchek, Dmitriy Kostyuk, Dmitriy Petrov, Nikolay Sheshko. ESTIMATING THE SOCIO-ECONOMIC DAMAGE CAUSED BY RIVER FLOODING

The issues of predicting damage as a result of flooding of highly anthropogenically transformed territories are considered. Flood modeling approaches to predict the flood zones are reviewed. A method for the spatial analysis of the level of use of the territory and the depth / duration of flooding of the territory is proposed.

2.10. Iryna Anhelko, Nataliya Samotiy. INTEGRATED MARKETING COMMUNICATIONS IN THE ACTIVITIES OF ENTERPRISES: ROLE, APPLICATION FEATURES AND INFLUENCE EFFECTIVENESS

As is known, the exchange of information accompanies all stages of development and processes of functioning of a separate business entity, ensures the formation and implementation of functions and management methods by it, determines its relationship with the market. It is worth noting that an important place in the system of communication relations of a business entity belongs to marketing communications, which are "aimed" not only at informing the consumer about products, but also at establishing long-term relations with him, which in general has a positive effect on the competitive position of the entity project and its success on the market.

In modern conditions, it is quite difficult for a business entity to determine which means of marketing communications are effective, i.e., those that can provide it with long-term relations with consumers. Therefore, it is most often suggested to use a complex of marketing communications, which in economic practice is called «integrated marketing communications».

The importance of the use of integrated marketing communications by individual business entities is becoming more and more relevant, which creates the need to assess the effectiveness of their application and impact on the activities of business entities.

2.11. Yuri Biletsky. INNOVATIVE ACTIVITIES ON THE TOURIST MARKET OF UKRAINE

The results of the research on the use of innovations in the domestic tourist market in the conditions of increased competition and unfavorable period for the tourist business are presented. The most popular innovative computer reservation and reservation systems and their implementation on the domestic tourist market are analyzed.

The websites of tourism enterprises were studied, namely their functionality and informativeness, and the reasons for the low innovativeness of some enterprises in the tourism industry were found.

The most popular innovative technologies on the Ukrainian market have been identified and analyzed. The latest technological solutions used by domestic enterprises to optimize work and increase sales are considered.

The latest technologies that will be used in tourism have been identified, including CRM systems for the domestic tourist market.

Deficiencies in innovative activities of the domestic tourist market are indicated.

Information on the use of innovations by Ukrainian tourism firms has been updated and summarized.

2.12. Denys Bochkarov. TRENDS AND DIRECTIONS OF RECOVERY OF THE AGRICULTURE MARKET OF UKRAINE IN THE CONTEXT OF ECONOMIC SECURITY

Nowadays it is created unprecedented large-scale challenges and threats to the economic security of the agri-food market in Ukraine, which is one of the most important sectors of the national economy. The article examines the trends in the development of the agri-food market of Ukraine, identifies threats to its functioning during the war period, and substantiates the main directions of recovery based on the principles of market resilience.

2.13. Liudmyla Halan, Nataliia Bobrovnycha. SYSTEM OF COMPETITIVE STRATEGIES TO ENSURE THE MODERN TELECOMMUNICATIONS OPERATOR DEVELOPMENT PROSPECTS

The article examines theoretical aspects regarding the use of competitive strategies of the telecommunications operator and highlights competitive strategies to ensure their implementation in the activities of the telecommunications operator of Ukraine. The article highlights the advantages and disadvantages of the company's competitive strategies. Also, in order to see the impact of certain factors on the socio-economic development of the telecommunications operator in modern conditions, a SWOT analysis was formed – an analysis of the activity of the leading operator of Ukraine, namely, the Kyivstar PJSC companies. The result is ensuring the successful implementation of selected competitive strategies in the activities of the telecommunications operator, which form competitive positions on the market and further prospects for the development of the mobile communications operator.

2.14. Lyudmila Zveruk. ECONOMIC EFFICIENCY OF THE MANAGEMENT SYSTEM OF INNOVATIVE ACTIVITIES OF BANKS

Digital ecosystems are a promising business model for banks, as their implementation increases the client base, allows you to earn income outside of the core business, and cooperation with other companies creates additional income and a synergistic effect. The effectiveness of innovative activity can be evaluated through economic, social and strategic effects, and as a system characteristic – through the evaluation of components depending on the type of innovation and innovative activity. The system organization of effective innovative activity of banks is developing into an ecosystem. The main task of ecosystem development is the active struggle for customers, the creation of innovative products, and the availability of services.

Improvement of the innovative activity of the bank includes: transformation of the innovative development strategy of the bank, expansion of the areas of innovative activity, provision of effective organizational structure and management.

2.15. Mariia Lapishko, Oksana Sadura. BANKING SYSTEM OF UKRAINE BEFORE AND DURING THE RUSSIAN AGGRESSION

The priority tasks of the banking system of Ukraine today are minimizing the negative impact of Russian military aggression on the financial system and maintaining its stable operation. The more important result can be considered that the financial system of Ukraine on modern military conditions is institutionally capable, ensures money circulation, preventing panic in the financial markets. In the presented article describes the Ukrainian financial system and her banking sector before and during the hostilities of the full scale Russian invasion of our state. Problematic aspects of the breach of financial stability are indicated. Risks and threats to the financial sector of the economy are outlined, as well as promising and projected results of calculations based on the Inflation Report of the NBU.

2.16. Yuri Pozdnyakov, Mariia Lapishko. METHODOLOGICAL FEATURES OF REPORTS ON INDEPENDENT PROPERTY AND PROPERTY RIGHTS VALUATION FORENSIC EXAMINATIONS PERFORMING

The article behaves to the field of assets and property rights independent expert appraising / valuation reports forensic economic examinations. Theoretical grounds, on those economic measurements expert valuation results uncertainty degree methodology is based, are examined. The substantiation of the probabilistic-metrological approach methodology principles to evaluation results uncertainty degree quantitative determination, based on the evaluation result interval form presentation, is considered.

The purpose of the article is to highlight the problematic issues of forensic economic examinations performing, to establish indicators of the assets value obtained as a result of economic measurements carried out by methods of independent expert evaluation. Research and interpretation of theoretical grounds and practical recommendations substantiation for the heuristic methods for determining objective quantitative indicators of the evaluation result uncertainty degree. Performing the evaluation results interpretation; analysis of opportunities to increase the objectivity of these results; practical recommendations formulation on the priority areas of their analysis.

The requirements of national and international evaluation standards for the evaluation results uncertainty are analyzed. The methodology of evaluation results accuracy objective quantitative indexes are described and performed. It is well-proven that the level of valuation results errors at economic measurements implementation can be set on the basis of information theory and measurement uncertainty / errors theory laws application. It is shown that in the case of Comparative Sales and Income approaches applying, uncertainties for given levels of confidence probability in the form of numerical values of the confidence interval limits can be established on the basis of similar property adjusted single unit value indicators or rental rate rows statistical processing. Attention is accented on the informative-metrological approach to valuation results uncertainty degree exposure.

2.17. Pavlo Semenov, Vitaliy Pustovyi. DETERMINATION AND EVALUATION OF PARAMETERS OF THE TECHNICAL CONDITION OF PORT CRANES

An analysis of the main damages and defects of metal structures of port cranes was carried out, the periods of origin and development of defects during the life cycle of the crane were determined. The distribution of the number of damages by the main elements of port cranes is given. It was established that 40% of dangerous defects detected during technical diagnostics of port cranes are defects of calculated metal structures. The main requirements for the safe operation of cranes with defects and damage to the metal structure are defined.

2.18. Alexander Sklyarenko, Liliia Petrushenko. THE SIGNIFICANCE OF A MODERN AND INNOVATIVE PERSONNEL POLICY IN THE MANAGEMENT OF A SCIENTIFIC INSTITUTION

The paper examines the principles and directions of the latest personnel policy as a leading tool for the strategic development of a scientific institution. An approach to determining the personnel policy of a scientific institution is proposed, its purpose, object and principles are outlined, and the peculiarities of personnel formation are investigated. The key areas of human resources in scientific institutions were determined and a number of recommendations were proposed for the implementation of innovative methods of forming human resources.

2.19. Dmytro Starokadomsky, Mariia Reshetnyk. TYPICAL PROBLEMS IN THE RELATIONS OF UKRAINIAN INNOVATIVE SCIENTIFIC TEAMS WITH REPRESENTATIVES OF BUSINESS AND PRODUCTION

The examples of real situations, typical problem situations in the contacts of "innovator-merchant" and "innovator-producer" are considered. It is shown that up to 90% of such contacts do not provide real benefit to innovative teams, ending (at best) at the stage of the first payments. As a rule, this trend has a number of reasons. This is, in particular, the illiteracy of most scientists regarding the method of implementation and production requirements; businessmen's confidence in the ability to appropriate the innovator's development for free or "on-free" or "for a penny"; regularity, high cost and corruption of certification and permitting procedures; reluctance of business and production to draw up official contracts through the Research and Development Institute. The real reasons for the low efficiency of numerous start-up companies, project teams, grant groups and the forums, exhibitions, and round tables organized by them are revealed. The main reason for this, the authors see, is the low level of state support for its own innovation sector, and the dependence of the state innovation policy on Western financial and credit structures.

2.20. Oksana Tereshchuk. INNOVATIVE ACTIVITIES ON THE TOURIST MARKET OF UKRAINE

The main components of innovative activity, which are the result of the implementation of innovative projects, as well as research and development of new technology (including information technology), are substantiated.

The effectiveness of technical, organizational and economic innovations has been proven, which inevitably lead to noticeable positive changes in social processes at enterprises, and the ever-increasing actualization of urgent social tasks initiates their solution with the help of new organizational, technical and economic solutions.

The priority areas of tourism development have been determined. Its activation involves the diversification of specific submarkets and the complication of the territorial structure of the domestic market due to the formation of local territorial markets based on the intensification of the resource base of tourism and the development of tourist infrastructure.

The main regulator should be the introduction of innovations in the tourism business, which will help stimulate the development of small and medium-sized enterprises in domestic tourism and the organization of excursion activities.

2.21. Iryna Khymych, Nataliia Tymoshyk, Tetiana Vynnyk, Tetiana Podvirna. UKRAINIAN BANKING SYSTEM IN THE CONDITIONS OF WAR

This article highlights Ukraine's banking system's peculiarities in wartime conditions. The general strategy of the NBU in the war conditions has been presented. This strategy reflects the macro level of functioning: NBU, banks, and non-banks. The positive and negative factors influencing the NBU in wartime conditions have been studied. It has been determined that the activity of the banking sector remains liquid. Liquidity risk and credit risk are described. A map of the financial dynamics sector risks was presented. It has been determined that the agriculture

sector needs the most bank lending. It has been investigated that the NBU pursues a policy of regulatory relaxation. The primary information technology functions of the NBU are described. The rating of the most reliable Ukrainian banks as of June 1, 2022, is presented. The dynamics of the financial stress index results for Ukraine are displayed. The schedule for the gradual restoration of the country's bank's capital is described.

2.22. Leonid Tsubov, Oresta Shcherban, Liubov Kvasnii. THE ROLE OF INFORMATION SYSTEMS AND TECHNOLOGIES IN ECONOMIC MANAGEMENT

This article examines the role of information systems and technologies in managing the economy. The objective reasons for the emergence of the Internet economy, which are related to the socio-economic transformations that took place in society and the economy in the second half of the 20th century, are analyzed. Five periods of the development of the Internet economy are conventionally identified.

The functions performed by the Internet in the modern economic system are determined. Since knowledge, information and methods of their processing become a decisive factor in the development of society, four stages of the formation of the information economy are distinguished. The place of the Internet economy in the modern economic system and the advantages of the digital economy are outlined.

A number of priority innovative solutions for building a digital economy in Ukraine and developing Internet entrepreneurship are proposed. The need for the introduction of innovations, as well as the proper regulatory and legal regulation of their implementation, has been proven.

Part 3. INFORMATION AND INNOVATIVE TECHNOLOGIES IN SUSTAINABLE DEVELOPMENT OF SOCIETY

3.1. Ihor Aliksieiev, Andriana Mazur. THE FOREIGN POLICY ASPECT OF RESEARCH IN FINANCE

Modern international and national finances of many countries are under the influence of aggressive actions of a number of countries. In particular, the financial system of Ukraine is under catastrophic influence from the Russian aggressor. Such actions also significantly affect the financial systems of European countries. Due to the blockade of Ukrainian seaports, there was a threat of a global food crisis. Russia's war against Ukraine outlined the importance of taking into account foreign policy influence in financial relations between countries, as well as within national financial systems. In this way, the foreign policy factor became dominant in the finances of many countries of the world in the 20s of the XXI century.

3.2. Victoriia Overchuk, Natalia Lapshova. WAYS OF SOCIO-PSYCHOLOGICAL INTEGRATION INTO SOCIAL LIFE OF PERSONS WITH DISABILITIES: EUROPEAN EMPLOYMENT EXPERIENCE

The problem of people with disabilities integration into social life has existed throughout the entire existence of mankind. But the level of this problem solving remains low even in countries with developed economic. The article examines the European experience of socio-psychological integration into the social life of persons with disabilities: the European employment experience through employment such people.

3.3. Svitlana Pylypenko. MEDIA FUNDAMENTALISM AS A CHALLENGE OF INFORMATION MODERNITY

The article is devoted to the media fundamentalism situation of information modernity. It is noted that new forms of social interaction, social control and social change are emerging. It is emphasized that a new communication organization is being formed, which becomes the principle of the society organization. It is shown that media fundamentalism is associated both with the intensive introduction and interweaving of modern information technologies, and with the high-speed spread of local and global networks. All this creates a new quality of information exchange and a new toolkit for influencing a person and society. Social reality introduces itself as a media reality.

3.4. Larysa Abyzova, Julia Kharchenko, Olena Karanfilova. ANTHROPOLOGICAL MEASUREMENTS DIMENSIONS OF THE INFORMATION ERA

The article is aimed at investigating of the social and ontological measurements of the image of an individual in the information society. New manifestations of the existentials of the individual of the cyber society are defined and characterized. These manifestations are based on the syncretism of the irrational and rational components of human existence. The object of the study is the philosophical discourse of thinkers of the late 20th and early 21st centuries. The subject of the article is the study of the image of an individual in the information and communication era. The conceptual and worldview perspective of the critical and creative thinking of the individual is outlined. The authors underline that the new thinking is based on the transcendental system of coordinates formed by the synthesis of existential knowledge and existential faith. The issue received further development of the dangerous dependence of a person in an information society on information technologies and media tools.

3.5. Mariana Baran. ANALYSIS AND DEVELOPMENT OF A SYSTEM FOR MONITORING WEATHER CONDITIONS AND NATURAL PHENOMENA

Almost all, without exception, people are interested in the weather outside the window of their cozy home, using completely different methods to check its condition. Most of us use modern means for this: smartphones, laptops, tablets, personal computers, etc. All smartphone manufacturers release their own software, which includes pre-installed programs for monitoring weather phenomena. Climate affects human existence, health and future. It is the long-term nature of weather conditions in any particular location. Our climate is changing because of people, and these changes are already having a big impact on society. Therefore, one of the urgent issues is the problem of general systems for monitoring weather conditions, their improvement and elimination of problematic issues that arise during their creation.

3.6. Serhii Zaiets, Viktoriia Horohsko. OPTIMIZATION OF OPERATIVE TREATMENT OF ACUTE CALCULOUS CHOLECYSTITIS IN PATIENTS WITH COVID-19 RESPIRATORY INFECTION BY USING MODIFIED LAPAROLIFTING DURING LAPAROSCOPIC CHOLECYSTECTOMY

Both in the pre-pandemic and pandemic periods of COVID-19 infection, the most common emergency surgical pathology in patients was acute calculous cholecystitis. In patients with COVID-19 who underwent cholecystectomy, a stressed state of both the coagulation system and kidney function was revealed.

It has been shown that patients with COVID-19 with respiratory disorders require a greater flow of oxygen for mechanical ventilation during surgery, which can lead to the development of the effect of hyperoxia and damage to the lung tissue.

Performing a cholecystectomy, the advantage of using the "gasless laparoscopy" method in the presence of respiratory disorders in patients with COVID-19 has been shown, which allows to reduce the need to increase the peak pressure in the pelvis during intubation anesthesia, also in the postoperative period, this method has a positive effect on the patients' need for oxygen to reach the necessary saturation.

3.7. Khrystyna Kolbasova. DETERMINANTS OF THE FORMATION OF NON-VERBAL INTELLIGENCE OF OLDER PRESCHOOL CHILDREN WITH COCHLEAR IMPLANTS

The article substantiates scientific research and the main determinants of the formation of non-verbal intelligence of older preschool children with cochlear implants. The main theories of non-verbal intelligence are characterized and its structure is defined. The possibilities and prerequisites for the formation of non-verbal intelligence of older preschool children as a certain psychological phenomenon, a neoplasm of this age, which is formed depending on social and personal factors, are analyzed. The need for purposeful development of the components of non-verbal intelligence of older preschoolers with cochlear implants as factors contributing to their personal growth has been proven.

3.8. Marta Mashevskya. THE RISK OF MAN-MADE DISASTERS ASSESSMENT BASED ON THE FUZZY LOGIC MODEL

The effectiveness of activities in the field of reducing the risks of man-made disasters, as well as reducing their scale, is determined by the quality of monitoring and assessment of the probable danger level. In the proposed article, an analysis and justified selection of the main factors and adverse conditions of extraordinary man-made situations is performed to build a model for assessing the risk of their occurrence. A base of logical derivation rules for a fuzzy risk assessment model of man-made disasters has been formed. The developed model was implemented and tested with the help of a neurofuzzy controller, which input was a statistical data from previous reporting periods regarding the prerequisites and consequences of man-made emergencies.

3.9. Liudmyla Opanasenko. PSYCHOLOGICAL TECHNIQUE FOR WORKING WITH INTERNAL AND EXTERNAL RESOURCES "POINTS OF SUPPORT"

The article presents the author's technique for working with internal and external resources of "Points of support". The technique is aimed at finding, restoring, and resourcing a personality that is suffering from uncertainty, fatigue, exhaustion, or devastation. The author reveals the methodological features of this psychological tool in working with clients over 16 years old in the conditions of military operations on the territory of Ukraine. Special attention is focused on the stages of work with the "Points of support" technique (inclusion in work, work with the body, work with emotions, work with social contacts, work with activities) and the main results of the development approbation at the Center for Social and Psychological Support of Teachers and Students. The study identified the advantages of the "Points of support" technique and general recommendations for its implementation in psychological practice.

3.10. Iryna Ostopolets, Oksana Beshpalova, Andriy Zaika. ADDICTION TO GADGETS AS A VARIETY OF ADDICTIVE BEHAVIOR AMONG ADOLESCENTS

The article deals with the concept of mobile addiction and addictive behavior and the causes of their occurrence in adolescent pupils. Varieties of mobile phone addiction and their signs in the behavioral manifestations of schoolchildren are revealed. The results of empirical studies of high school pupils are described regarding their propensity for gadget-dependent behavior and features of phone use in everyday life. The necessity of continuing the research and obtaining additional data for the purpose of developing preventive and corrective and therapeutic work with pupils has been proved.

3.11. Artem Ruban, Nina Rashkevich, Victoria Otrosh. SOFTWARE SIMULATION OF THE EVACUATION OF PEOPLE IN CASE OF FIRE PATHFINDER

One of the main factors in ensuring the safety of people's lives is the correctly executed calculation of the evacuation of people from premises. Because, according to the analysis of statistical data on fires, the main part of those who died during a fire are people who were poisoned by toxic substances. combustion products. Scientific articles have been developed, which highlight the problems of evacuation during various emergency situations and the latest methods, methods and strategies. Computer modelling was carried out regarding the actual time of evacuation of a complete property complex of industrial and domestic objects with administrative premises. These calculations were carried out in accordance with the recommendations and instructions for using the Pathfinder software complex. The two most likely fire scenarios were calculated. The use of the Pathfinder software complex allows you to simulate evacuation in various buildings and premises, it is possible to set up a specific calculation with all possible factors: simulation of the evacuation of people with disabilities; the ability to set and adjust the speed of agents on different sections of the evacuation route; the presence of a function that regulates the beginning of the movement of agents in a given behaviour, etc.

3.12. Oleksandr Khoroshev. SOME PROBLEMS OF CHARITY IN THE CITY OF KHARKIV IN THE LATE 19TH AND EARLY 20TH CENTURY

The article analyzes and attempts to generalize the historical experience of the charity formation and development in Kharkiv in the late 19th and early 20th century. It also scrutinizes the basic forms and methods of some charitable societies in the city. The author introduces into scientific circulation new, still unexplored historical sources, namely the Charters of several Kharkiv charitable societies and recalls the names of some local philanthropists who have fallen into unmerited oblivion yet deserve the memory of their posterity. When writing the article, the author used comparative and descriptive methods as well as systemic analysis and synthesis of historical material.

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