Частина I

СТУДЕНТСТВО. НАУКА. ІНОЗЕМНА МОВА

Збірник наукових праць

Міністерство освіти і науки України

ХАРКІВСЬКИЙ НАЦІОНАЛЬНИЙ АВТОМОБІЛЬНО-ДОРОЖНІЙ УНІВЕРСИТЕТ

СТУДЕНТСТВО. НАУКА. ІНОЗЕМНА МОВА

Збірник наукових праць

Випуск 15
Частина 1

АРХІТЕКТУРА ТА БУДІВНИЦТВО
ГУМАНІТАРНІ НАУКИ
ЕКОНОМІЧНІ НАУКИ
ІНФОРМАЦІЙНІ ТЕХНОЛОГІЇ
ПРИРОДНИЧІ НАУКИ
СУСПІЛЬНІ НАУКИ

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У збірнику подано статті іноземними мовами з викладенням результатів наукових досліджень студентів, аспірантів та молодих науковців у різних галузях, що можуть зацікавити світову наукову спільноту. Регулярні публікації робіт допоможуть виявити талановиту студентську молодь, здатну брати участь у міжнародному професійному, науковому та освітньому обміні та втілювати одержаний досвід у розвиток передових технологій.

Зміст

ARCHITECTURE AND CONSTRUCTION

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DIE GEODÄSIE

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Land ist eine lebensnotwendige und nicht vermehrbare Ressource, für dessen nachhaltige Nutzung es geeigneter Strategien und Instrumente bedarf. Das Landmanagement umfasst insofern das fortlaufende Monitoring der Landnutzung, die Ermittlung eines Anpassungsbedarfs aufgrund sich verändernder gesellschaftlicher Anforderungen sowie dessen planerische und eigentumsmäßige Umsetzung [1].

Die Geodäsie ist die Wissenschaft von der Bestimmung der Form der Erde, ihres Schwerefeldes und ihrer Rotation sowie deren zeitlichen Veränderungen. Wesentlich für die moderne Geodäsie sind stabile und konsistente geodätische Referenzsystemen.

Diese Referenzsysteme bilden die Grundlage für die Bestimmung zeitabhängig gegen Koordinaten von Punkten oder Objekten und für die Beschreibung der Bewegung der Erde im Weltraum. Die geodätischen Referenzsysteme ermöglichen eine konsistente Interpretation von globalen Veränderungsprozessen und eine zuverlässige Überwachung der Folgen des Klimawandels. Das globale geodätische Beobachtungssystem der Internationales Assoziation für Geodäsie ist Beitrag der weltwieten geodätischen Gemeinschaft zur Beobachtung und Überwachung des Systems Erde [2].

Die Geodäsie liefert mit ihren Vermessungsergebnissen (z. B. aus Kataster- und Landesvermessung, Ingenieurgeodäsie, Fotogrammmetrie und Fernerkundung) die Grundlagen für zahlreiche andere Fachgebiete und Tätigkeiten: im Bereich der Geo- und Naturwissenschaften zum Beispiel für die Astronomie, Physik und Ozeanografie, für Geoinformatik und Kataster, für Landkarten (neben topografischen auch thematische Karten) der Geologie, Geophysik und Kartografie sowie für verschiedenste Dokumentationen, etwa der Archäologie, in der Technik vor allem für Bauwesen und Architektur, für verschiedene Ziviltechniker, den Ingenieurbau, die Funk- und Geotechnik und diesbezügliche Datenbanken oder Informationssysteme.

Die Geodäsie befasst sich mit der Vermessung der Erde in globalen, regionalen und lokalen Maßstäben. Die Geoinformation wiederum stellt den Zusammenhang zwischen den erfassten Daten und deren Raumbezug, der Verarbeitung mit computergestützten Verfahren und deren Präsentation mit digitalen Geoinformationssystemen. Die Geodäsie und die Geoinformation ist eine Ingenieurwissenschaft, die interdisziplinär arbeitet und moderne Messtechniken, Analyseverfahren und Kommunikationsmedien einsetzt. Ziel vieler Anwendungen ist die Darstellung und Gestaltung unseres Lebensraums, wie z. B. die Bewertung von (knappen) Ressourcen unserer Erde oder die Entwicklung und Planung unserer Umwelt und Infrastruktur [3].

Die Beobachtungsverfahren, die Geodäsie umfassen verschiedene Sensoren und Geräte auf der Erde, im erdnahen Umfeld sowie im Weltraum. Sie bilden zusammen ein großes, umfassendes und hochgenaues “geodätisches Instrument“ zur Überwachung das System Erde in einem breiten Spektrum von räumlichen und zeitlichen Maßstaben. Die bodengestützte Infrastruktur besteht aus einem weltweit verteilten Netz von Stationen mit verschiedene geodätischen Beobachtungsverfahren.

Dazu gehören Beobachtungen von extragalaktischen Objekten durch VLSI (Vers Long Baseline Interferometrie) um die Ausrichtung der Erde im Weltraum zu bestimmen, Entfernungsmessungen zu Satelliten und zum Mond mit Laserstrahlen. Dem Beobachtungsverfahren DORIS, eine der Technik von Satellitenumlaufbehnen und schließlich GNSS (Globale Navigationssatelliten Systeme) und dieser Satelliten über ein dichtes Netz von Bodenstationen [2].

Darben hinaus Veden satellitengestützte geodätischer Weltraum Verfahren eingesetzt für: Bestimmung des Erdschwerefeldes, um die Massenverteilung, unsere Planeten und ihre Veränderungen zu ermitteln, zu wie Beobachtung der Erdoberfläche einschließlich der Ozeane und Eisschilde. Diese Beobachtungsarten würden ergänzt doch mit Instrumenten zur Bestimmung der Schwerkraft, die das globale Wissen über das Schwerefeld der Erde verbessern und Messungen zur Erfassung der Hohe des Meeresspiegels in Verhältnis. Die Organisation dieser geodätischen Beobachtungssysteme wird von dem Dienst der IAG. Diese Dienste erzeugen geodätische Produkte, die Sowohl für die Geodäsie als auch für viele andere wissenschaftliche und Gesellschaftliche Anwendungen relevant sind. Dafür analysieren sie die Vielfältige geodätischen Beobachtungen. Die Genauigkeit und Zuverlässigkeit der Produkte, die Qualitätskontrolle, die Aktualität und die Verarbeitung auf dem neuesten Stand der Technik sind wesentlich Aspekte der IAG Dienste.

Der Vermesser Beruf als Wissenschaftler gehen dem Wandel der Erde auf den Grund sie programmieren 3-D Modelle, sie arbeiten ist Grundlage für Bausparer Herstellerunabhängige grundstucksbewertung. Der Vermesser teilen Kunststücke auf der Stellen Lageplane Fieber und starkes Service darum, dass die Bauvorhaben dem Baurecht und sprechen, also zum Beispiel dass das Gebaute am richtigen Platz steht. Zum Tätigkeitsfeld des Fachgebietes im Bauwesen gehört die Erzeugung von mittels terrestrischem Laserscanning und Drohnen-Befliegungen (u. a. Scan2BIM und Drones2BIM) als Grundlage für die Steuerung von Bauprozessen und die effiziente Bewirtschaftung über den gesamten Lebenszyklus des Gebäudes – z. B. für Aufgaben des Facility-Managements. Aber auch das gesamte Portfolio der baubegleitenden Vermessung (Bauwerksabsteckung und -aufnahme) und das Bauwerksmonitoring durch Deformationsmessungen, -analysen und -interpretationen [2].

Mithilfe modernster Technologie zu Laserscanner, Tachometer oder GPS messe, ist stucke auf und kann somit besitzt. Die auf gemessenen Daten werden mithilfe von amtlichen Kataster und sagen überprüft, das ist die Voraussetzung dafür, dass dann die Baugenehmigung ausgesprochen wird und das Haus letztendlich gebaut werden konnten. Dort ihrer Arbeit ist die Grundlage für Bauvorhaben, das ist eine Groß Verantwortung, schließlich soll. Es keinen Ärger mit Nachbarn geben, heißt öffentlich bestellter Vermessungsingenieure.

Die Vermessung ist die häufigste Anwendung für professionelle Drohnen-Beflügelungen. Bei der Drohnenvermessung wird zumeist eine fotogrammetrische Bildauswertung von vielen Drohnen-Einzelbildaufnahmen vorgenommen. Bei der nachfolgenden fotogrammetrischen Berechnung entstehen daraus Punktwolken mit Millionen von 3-D-Punkten. Unter Einbeziehung von klassischen Vermessungspasspunkten (GCP) oder GPS-Daten (RTK) erreichen wir dabei je nach Flughöhe eine Genauigkeit von bis zu 1-2 cm. Die Drohnenvermessung eignet sich besonders für die Ermittlung von Planungsgrundlagen, dem Vermessen von großen Arealen bis mehreren hundert hekto, als digitales Geländemodell (DGM), für Volumenermittlungen und Massenermittlungen von Haufwerkes und zur Berechnung von Abraum im Tiefbau.

Die Aktivitäten in Geodäsie ist Stehen alle Aspekte der globalen Navigationssatellitensysteme (GNSS), Anwendungen der Satellitengeodäsie, Multi-Sensorsysteme einschließlich Mikrowelleninterferometrie in Bau- und Umweltingenieurwissenschaften, präzise Navigation auf der Basis von GNSS/INS-Systemen z. B. zur Automotivenanwendung sowie die Entwicklung geeigneter Schätz- und Filterverfahren.

Der Vermesser habt einem vielseitigen anspruchsvollen und technischen Beruf mit guten Perspektiven und Karrierewachstum.

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Maksymovskyi M. O.

HISTORY OF KHARKIV ARCHITECTURE

Language Advisor – Asst. Prof. Ihnatieva N. V.

Kharkiv is a city located in the north-east of Ukraine. It was founded in 1654. It is also considered the scientific centre of Ukraine and administrative centre of the

Kharkiv region. Currently, Kharkiv has the status of a hero city.

The history of Kharkiv architecture begins with the 17th century even during the reign of the Cossacks, who settled near the confluence of the Kharkiv and Lopan rivers. Then the first defense structures and a rampart were erected according to the drawing of Hryhoriy Speshiev, which was changed under the leadership of Selifontov and placing it along the Lopan River. The building was surrounded on all sides by ditches and ramparts, where there were oak fences in the form of closet made of two parallel rows of wood, connected by transverse walls, between which earth and stones were poured. There were 10 towers above the walls, of which 4 were corner, 3 external and 3 intermediate ones. By the way, three main roads led from the outer towers: Moskovska (first from the north side, then from the east),

Chuhuivska (way to the south) and Lopanska (way to the west). Administrative buildings and Cossack huts were also located in the middle of the fortress.

When we talk about buildings, we should to say that characteristic features of residential construction were: minimal use of beams, external and internal walls, interlaced with brushwood, between which stones were filled with clay, plastered and whitewashed, moldings made of colored clay. Freely located liberties developed around the fortress. In 1657-1659, the Svyato-Uspenskyy cathedral was built of wood, which was later replaced by stone. In 1689, the stone Pokrovskyy cathedral was built, which became the oldest stone building in the city. In 1709, by the royal order, the fortress was expanded: the fortifications were strengthened, they were given a broken contour plan with five bastions at the corners, which were placed in the direction of the Bursatsky Uzvoz. Over time, the city lost its defensive significance and took on the appearance of a cultural center of Slobozhanshchyna.

At the beginning of the XIX century the fortress buildings were finally destroyed, and the place of the fortress turned into the center of the city. Since 1882, the city began to be paved with stone.

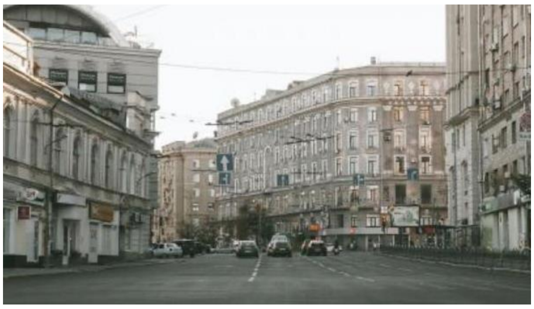
Do not forget that since the end of the 18th century Classicism, the so-called “urban style”, came to Ukraine. Preference began to be given to public buildings and churches. Ukrainian classicism was based on the forms of ancient classics and took as a basis the characteristics of this style: solemnity, grandeur, tranquility. The former governor’s palace, and now the main building of the Ukrainian Engineering and Pedagogical Academy was built in 1770-1777. The building was built by architects I. M. Vilyanov and P. A. Yaroslavskyi. The Pavlov Manor was built in 1832. (Architect – A. Ton.)

At the end of the 19th and the beginning of the 20th centuries, buildings in the style of Ukrainian Art Nouveau were actively built in Kharkiv. The style is based on folk traditions of home and church construction. One of them is economic building of V. N. Karazin KhNU which was built in the 1930s according to the project of Serhiy Tymoshenko, who is called the father of modern Ukrainian architecture of the beginning of the 20th century, the building of the Faculty of Economics is one of the first reinforced concrete structures in Ukraine.

It is possible to single out the main streets of the city in the periods from the end of the 19th to the beginning of the 20th century:

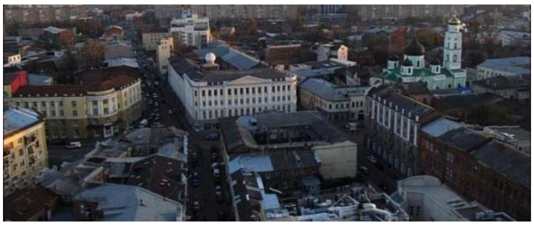
1. Sumska Street, which is 4.2 km long. It starts from Constitution Square and ends at the intersection with Derevyanka Street. It arose at the end of the 17th century as the road to the city of Sumy. In 1908, a four-story combined building was built according to the project of architects O. R. Muntz and A. K. Shpigel. Now a thermometer hangs on it. In the 1920s, another floor was added. The building combines modern with elements of classicism. The three-story corner building was built at the end of the 19th century according to the project of the architect V. G. Mikhalovsky in the style of the French Renaissance. The Drama Theater named Taras Hryhorovych Shevchenko was completely rebuilt in 1893 in the style of the French Renaissance by the architect V. G. Mikhalovsky. An interesting fact is that on the site of the shopping and office center “Ave Plaza” built in 2010, a residential building was erected in 1848, which changed its function from a cinema to a store in 1900, was unsuccessfully reconstructed in 1980, and then demolished. In 1914, the building “Salamandra” was built. The facade of the building is in the style of neoclassicism, the building is decorated with a monumental and decorative sculpture in the antique

style. The building was equipped with progressive engineering communications for the beginning of the 20th century - this is an elevator, a garbage chute, drains.



2. Kharkiv Heroes Avenue; It is the longest street in the place, more than 18 km long, which starts from the Constitution Square and ends at the beginning of the district. In 1913, a complex of two-story buildings “Selection Station” was built, which were made in the style of Ukrainian Art Nouveau.

It is also possible to highlight the Kharkiv Podil - this is a historical district that arose in the middle of the 17th century, bounded by the Kharkiv and Lopan rivers. Most of the building district was built in the 19th century. In 1933, the Central University was built on the site of shopping rows, the first in Kharkov, the architect of which was A. V. Linetskyi. In 1913, a building named the Astoria Hotel was erected. It is one of the first structures with a reinforced concrete frame, which was built with a large number of Atlantean sculptures and decorations. The building was based on high gables above the main entrance, bay windows of different heights and a corner dome.



By the way, the appearance of Freedom Square was a big step in the development of the city. The design of the square began in 1924 and is closely related to the construction of Derzhprom. The square got its unusual contours precisely because of the building of the State Pom, which occupies three adjacent blocks. This is how a new district appeared, bounded by Sumska Street and Derzhprom. The territory of the square is almost 12 hectares. Derzhprom was built in 1928 according

to the project of S. Serafimov, M. Felger, S. Kravets, under the leadership of engineer P. Rottert. The building is a large ensemble representing blocks divided by streets. It consists of nine buildings forming a fan-shaped structure. The height increases from the edge of the building to the center, symmetrically grouped in three blocks. The main techniques of architecture were: free plan, flat roofs, ribbon glazing of windows and lack of decor. The building was based on monolithic reinforced concrete frames.

Фасад і план першого поверху

Also on the square there are the former House of Project Organizations (Arch. Serafimov, Zandberg-Serafimov) and the House of Cooperation (Arch. Dmitriev, Munts) (now modern buildings of the 1st Kharkiv University founded in 1804), which were built in the 1930s years from monolithic reinforced concrete with wooden floors. Initially, these three buildings compositionally formed one ensemble. On the Sumy side, the ensemble closed the building of the Central Committee of the Communist Party of Ukraine (architect Yakiv Shteinberg) in the city of which in 1954 the building of the Kharkiv Regional State Administration (regional state administration) was erected by architects V. M. Orekhov and V. P. Kostenko. Hotel “Kharkiv” was built in 1936 in the constructivist style.

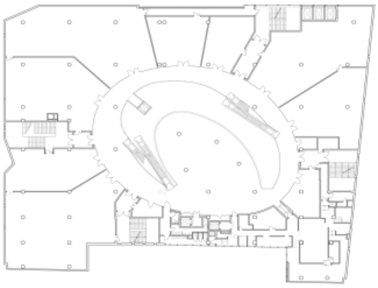
At the same time, such iconic buildings of the city as the HTZ residential complex is four blocks of a very interesting experimental building, in which there are no kitchens or anything like that. Quite a lot of kindergartens were designed there, and all this was supposed to be a single structure. Cooperative houses (the most famous of which was the “Slovo” house).

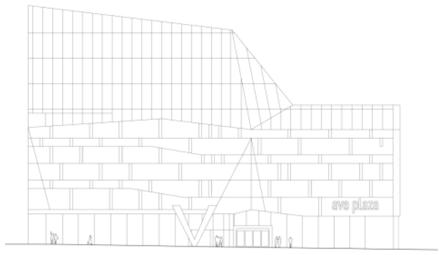
Since 1950, the city began to be built intensively. The architecture was characterized by the construction of luxurious buildings with spires and quarter-scale urban construction. Among them there are high-rise buildings with decorations on Plekhanivska, Sumska, Sverdlova Streets, etc. and the South Railway Station.

One of the oldest districts of the city is Moskalivka. It was here that there were a lot of sand mounds, on which it was impossible to build multi-story housing, so most of the houses here are one- and two-story. On the streets of the district, the old original cobblestones and several houses built from Kharkiv red brick, which was made from local clay, have been preserved. The structure of blocks of six acres has been preserved. What is unique here is that all the buildings face the street. This is a kind of format of Ukrainian town houses, where each house had a front door from the street.

The modern architecture of Kharkiv can be attributed such buildings like. Kharkiv Historical Museum named after M. F. Sumtsov appeared in 1920 after the reorganization of several small museums in Kharkiv. The institution has approximately 300,000 exhibits and operates several permanent exhibitions located on four floors. In 1997-2003, the museum was moved from the buildings handed over to the restored Svyato-Pokrovsky Monastery to the building of the former pawn shop, at Universitetskaya Street, 5. In 2014 the reconstruction of the museum is over. The shape was changed, and the building was covered with glass.

Also, I can say about Ave Plaza bulding (2003-2011, arch. Drozdov & Partners). The building of the shopping center closes the historical quarter in red lines and is a transition between the two scales that have developed in this place. The tower inside the atrium creates a lively atmosphere without destroying the visual relationships. Upstairs, an atrium crowns a recreational space with a rooftop garden.





So, Kharkiv has a long history and beautiful architecture. The greatest development of Kharkiv falls on the metropolitan period of the 20s and 30s of the 20th century.

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Mostovyi V. V.

ANALYSE DER KONSTRUKTIVEN FORMEN DER LAUFENDEN STRUKTUREN DES ÜBERFÜHRUNG

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Die Überführung ist eine technische Struktur, die dazu dient, Kommunikationswege oder für Frachtoperationen zu erhöhen, manchmal lang, bestehend aus einer Reihe von Stützen und Spannweiten des gleichen Typs, die dazu bestimmt sind, eine Straße oder technische Kommunikation über dem Boden zu platzieren, um ein besetztes Gebiet zu umgehen (meistens in Städten) oder Verkehrsströme.

Abbildung 1. – Eisenbahnüberführung in Cambridge, USA

Die Praxis des Entwerfens und Bauens von städtischen Verkehrsanlagen, im besonderen Überführungen, Gestellen und Kreuzungen, hat sich in den letzten Jahren erheblich verändert. Hauptgrund für die eingetretenen Veränderungen ist die schnelle und kontinuierliche Wachstum der Verkehrsintensität.

Eines der vielen Probleme der Stadtplanung und des Verkehrsdesigns, das direkt mit dem Entwurf von Brückenbauwerken zusammenhängt, ist die Aufgabe, optimale Planungs-, Layout- und Kompositionslösungen für Überführungen, Kreuzungen und andere Strukturen im städtischen Verkehrsumfeld zu finden und zu rechtfertigen.

Konstruktive Anforderungen für laufenden Strukturen und Unterstützungen. Die Verfügbark einer entwickelten städtischen Infrastruktur am Ort des Baus einer Transporteinrichtung diktiert eine Reihe spezifischer Anforderungen an Baustrukturen und -technologien. Unter den Bedingungen des bebauten Gebiets, des bestehenden Verkehrs und der unterirdischen Kommunikation vorsorgt die Wahl einer Planungslösung die Verwendung der folgenden Strukturen:

- Konstruktionen von laufenden Strukturen, die die Erstellung eines komplexen Plans und Profils der Route ermöglichen;
- Konstruktionen der kompaktesten Unterstützungen, die den Platz unter der Brücke freigeben;
- Konstruktionen der kompaktesten Fundamente, die die Arbeit der Verlegung der unterirdischen Kommunikation minimieren;
- Konstruktionen von laufende Strukturen und Unterstützungen, die eine unregelmäßige Anordnung von Stützerhebungen in Länge und Querschnitt ermöglichen.

Technologien für den Bau von Unterstützungen und laufenden Strukturen von Verkehrsknotenpunkten müssen die folgenden Anforderungen passen:

- für die Baustelle vorgesehene Mindestflächen;
- minimale Komprimierung des Unterführungsraums im Bereich bestehender Verkehrsverbindungen;
- Nutzung lokaler Industriestandorte;
- Mindestbauzeit.

Die Betriebseigenschaften des zu entwerfenden Gebäudes sollten Folgendes vorsorgen:

- Zuverlässigkeit und Dauerhaftigkeit von Konstruktionselementen;
- minimale Wartungs- und laufende Reparaturkosten;

- hohe Wartbarkeit.

Unter den Baumaterialien für laufenden Strukturen von Verkehrsüberführungen und Gestelle wird häufig Stahlbeton verwendet, der die meisten der aufgeführten Anforderungen am besten erfüllt, seltener - Stahlbeton und Stahl. Als nächstes betrachten wir die Tragwerksformen von Stahlbetonstrukturen.

Besonderheiten des Designs und der Technologien des Baus von laufenden Strukturen den Gestellen. Je nach Herstellungsverfahren für Gestellen und Überführungen aus Stahlbeton werden sie in monolithische, vorgefertigte monolithische und vorgefertigte unterteilt. Die Wahl der Produktionsmethode von Bauwerken hängt von den örtlichen Planungsbedingungen, der Verfügbarkeit von Baumaschinen, den klimatischen Bedingungen und anderen Faktoren ab.

Von den Tragwerksformen sind Platten-, Rippen- und Kastenspannkonstruktionen aus monolithischem, vorgefertigtem und vorgefertigtem monolithischem Stahlbeton weit verbreitet. Die Analyse der Tragwerksformen von Spannweitentragwerken und der Abhängigkeit ihrer Form von der Spannweitenlänge ermöglichte folgende Verteilung (Abb. 2). Wie aus Abbildung 2 ersichtlich ist, werden am häufigsten vorgefertigte Spannweitenstrukturen für alle Arten von Strukturen verwendet. Dieser signifikante Prozentsatz ist jedoch auf die erhebliche Nutzung solcher Strukturen in den Vorjahren zurückzuführen. Jetzt wurden sie durch monolithische Strukturen ersetzt, die es Ihnen ermöglichen, jede Form und Topologie von Spannstrukturen zu erstellen, die interne oder externe Geometrie entsprechend dem Ort oder den Merkmalen der Belastung usw. zu ändern. Darüber hinaus sind monolithische Stahlbetonstrukturen die meisten oft als Teil des Gebäudes mit durchgehenden Spannweiten verwendet. Daher ist auch der Anteil solcher Spannbauten signifikant und steigt von Jahr zu Jahr. Vorgefertigte monolithische Strukturen sind eine Zwischenoption zwischen vorgefertigten und monolithischen Strukturen, haben bestimmte positive Eigenschaften, sind jedoch nicht sehr verbreitet, insbesondere bei der Gestaltung gekrümmter Teile von Überführungen.

Monolithische Plattenspannkonstruktionen decken kleine Spannweiten ab, ermöglichen die Verwendung unregelmäßiger Stützen auf Gestellen entlang und über die Spannweite und vor allem - um einen freien Plan und ein Profil der Fahrbahn zu bilden. Eine geringe Bauhöhe gewährleistet die Kompaktheit des Gebäudes.

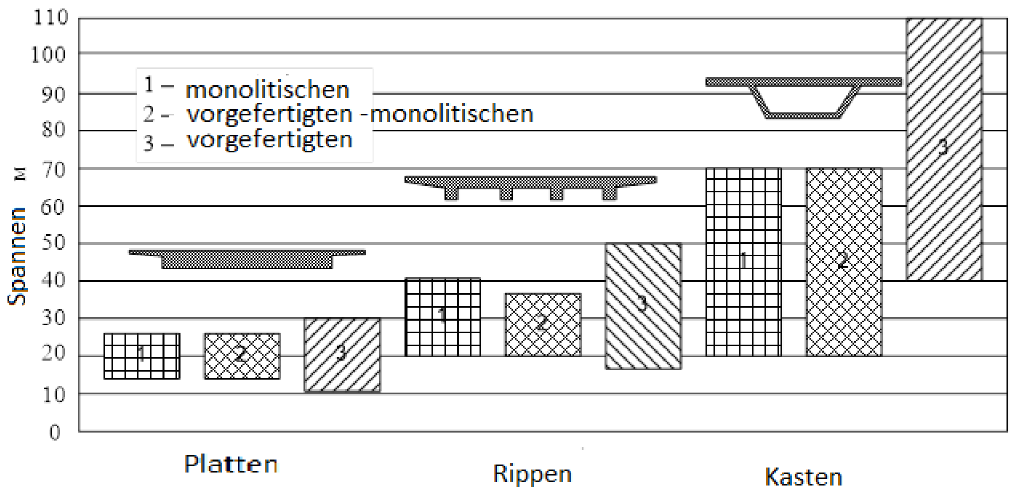

Abbildung 2. – Verteilung der Tragwerksformen von Spannweitentragwerken nach Spannweitelänge

Monolithische Rippenkonstruktionen (Plattenrippenkonstruktionen), die die Vorteile von Plattenspannwerken besitzen, ermöglichen die Überbrückung großer Spannweiten, haben ein geringeres spezifisches Gewicht und einen geringeren Materialverbrauch. Sie erfordern jedoch eine achsübergreifende Mehrstreben- oder Membranaussteifung, und der Installationsaufwand steigt im Vergleich zu Platten aufgrund der noch teureren Schalung.

Monolithische Kastenspannkonstruktionen nutzen das Material am effizientesten und ermöglichen die Abdeckung der größten Spannweiten. Die zentrale Punktlagerung der Box ermöglicht den Einsatz kompakter Trägerkonstruktionen. Es empfiehlt sich, sie auf geraden Strecken und Rundungen mit großem Radius auszulegen. Die Installationsmethoden ähneln anderen monolithischen Strukturen, sind jedoch noch zeitaufwändiger und teurer, was durch die Reduzierung des Materialverbrauchs bei großen Spannweiten kompensiert wird.

*Schlussfolgerungen***.** Einer der Hauptgründe für die Verschlechterung des Verkehrsregimes auf Stadtstraßen ist die schlechte Organisation des Verkehrsflusses über Autobahnkreuzungen. Daher ist die Entwicklung von Fragen im Zusammenhang mit der Gestaltung von Verkehrsstrukturen (einschließlich gekrümmter Überführungen), die zu Verkehrsknotenpunkten gehören, sehr relevant.

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Pokusa Yu. P.

DEFORMATIONS DU REVETEMENT DE PONT DUES AUX VIBRATIONS

Conseiller en langue – Asst. Prof. Shamray O. V.

La chaussée est une partie importante du tablier du pont avec laquelle les véhicules sont en contact direct. La solidité de la structure, le bon fonctionnement et la durabilité du revêtement sont très importants pour les usagers du pont.

Le revêtement du pont est utilisé pour protéger la dalle du pont de l'impact de la charge du trafic, de l'eau de pluie et d'autres conditions météorologiques, et pour fournir des conditions de conduite durables et confortables. Une surface de route rugueuse est inconfortable pour les conducteurs, donc une surface de route de qualité doit être conçue et construite conformément aux exigences techniques de la surface de la route.

90 –95% des dommages aux revêtements de ponts résultent de manques au niveau du système, ceci lors de la phase de projet et d‘exécution. Les causes sont: la formation de cloques dans le revêtement, les déformations du revêtement de pont, les fissures dans la chaussée ou la rupture du revêtement, des tabliers de pont inégaux entraînent des contraintes de charge supplémentaires de la structure porteuse ainsi que la réduction de la sécurité des usagers.

Pour les constructions de tabliers de ponts (étanchéité et revêtement), environ 1.5 –2% du coût total de la construction du pont sont nécessaires. L‘amélioration de la construction des tabliers de ponts, exécutée selon la normalisation internationale, nécessite 1.5 –2% de plus. Grâce à cet investissement supplémentaire, la durée de vie des tabliers de ponts pourra être prolongée de trois à cinq fois et la structure porteuse sera davantage protégée et donc également plus durable. Une durée de vie plus longue du tablier de pont ainsi que des entretiens et rénovations moins fréquents ont pour conséquence une meilleure disponibilité de l‘ouvrage.

Les revêtements des ponts doivent empêcher l'attelage ou la chenille du véhicule de porter directement le tablier du pont, protéger le tablier et la poutre principale du pont contre l'érosion par l'eau et disperser la charge concentrée des camions. L‘eau sous pression produit un effet „lavant“. L‘eau pressée puis à-nouveau aspirée altère l‘adhésion entre le liant et les granulats. L‘eau retenue dans le corps de la chaussée au-dessus de l‘étanchéité entraîne des dommages pendant les cycles de gel en hiver. Le revêtement doit également être capable d'absorber les charges du trafic et de les transmettre au tablier et aux structures porteuses, tout en restant dans les limites de la déformation admissible et en offrant de bonnes conditions antidérapantes pour les véhicules. En outre, ils doivent protéger la structure du pont des eaux de surface.

Les revêtements en béton de ciment et les revêtements en béton bitumineux sont les plus couramment utilisés dans les structures de pont. Le revêtement en béton de ciment présente des avantages tels qu'un coût plus faible, une résistance à l'usure, une adéquation aux ponts à forte circulation, une durabilité environnementale. Ce revêtement nécessite moins de réparations et d'entretien au fil du temps, mais exige un temps de durcissement plus long. En revanche, les revêtements en asphalte ont besoin de moins de temps pour durcir et sont plus légers, faciles à réparer ou à remplacer, mais ils vieillissent et se déforment facilement. Le revêtement en béton de ciment doit être construit simultanément avec la dalle de béton pour former une structure intégrale. S'il est coulé séparément avec une dalle de béton, le béton de la chaussée sera vulnérable aux fissures de retrait lors du séchage en raison de son épaisseur relativement faible.

Il y a un problème d'affouillement dû aux vibrations du pont, aux impacts des véhicules et à la pénétration des eaux de pluie. Pour cette raison, le béton de la chaussée et le béton du tablier doivent être placés simultanément et non séparément. Si l'eau de pluie pénètre dans la dalle de béton, elle provoque non seulement la corrosion des armatures ou de tout autre acier structurel du béton, mais accélère également la détérioration du béton, en particulier pour les tabliers soumis à des charges répétées dans des conditions de service [1]. Ils ont un impact significatif sur la durabilité et la capacité de charge du pont. À cet égard, il est nécessaire de prendre des mesures adéquates pour étancher non seulement le tablier en béton, mais aussi les éléments proches des joints de dilatation et autres dispositifs auxiliaires.

Pour les revêtements en asphalte, une couche d'imperméabilisation doit être utilisée pour empêcher la pénétration de l'eau de pluie. Bien que des méthodes et des matériaux d'application différents puissent être utilisés sur les tabliers de pont en acier et en béton, les étapes générales de la construction d'un tablier de pont commencent par le revêtement du tablier, suivi d'une couche d'étanchéité, d'une couche d'imperméabilisation, d'une couche de protection et d'une couche de surface par-dessus.

Un système de drainage de surface et souterrain doit être utilisé sur les tabliers en acier et en béton. La couche d'étanchéité peut être constituée de différents matériaux, notamment de matériaux bitumineux. La surface de la chaussée du pont est généralement construite comme une parabole incurvée avec une pente transversale de 1,5-2%. La surface de la chaussée est généralement construite en ligne droite avec une pente transversale de 1% [2].

La capacité de survie et la durabilité des structures de pont dépendent de la qualité du tablier du pont. Cependant, les revêtements du tablier du pont doivent répondre à un grand nombre d'exigences en matière de solidité, de résistance à l'usure, de résistance aux fissures, d'anti dérapage et de bonne intégration au tablier du pont. Le tablier du pont doit avoir une résistance suffisante à la déformation résiduelle, au glissement des véhicules sans fissure, etc. Il doit également protéger et étancher l'infrastructure sous-jacente, car la durabilité de la structure de la travée du pont en dépend.

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Shinan H. H.

SHIGERU BAN: HUMANITARIAN AND ECOLOGICAL ARCHITECTURE

Language Advisor – Asst. Prof. Ihnatieva N. V.

Modern architecture is focused on renewable energy sources, recyclable materials, sustainable and flexible solutions serving to reduce material expenditure and working to satisfy people’s spiritual needs. During the design process, choosing natural materials, recycled materials, self-renewing materials and materials that generate minimal waste has become a fundamental criterion of environmentally friendly design. Shigeru Ban, had started paying attention to recycled materials in turn to reduce waste much longer before people started talking about ecological and environmental issues. He is the only architect in the world making buildings out of the paper.

He has extensively used innovative material mainly with cardboard tubes. By using paper, he has done various projects starting from temporary shelters for refugees to museums and golf clubs. Since 1994, he has been passionately supporting displaced disaster victims by providing temporary shelters and schools for shuttered communities in Rwanda, Japan, Haiti, Turkey and China. Ban has built temporary yet memorable architecture, such as churches and music halls, for local people who tragically lost the previous ones extreme situations caused by devastating natural disasters. He has produced tools and architecture for shattered communities, that can easily be made, deployed and applied, even when no professionals or experts are available – which is often the case in an emergency.

In 1994, there was a big disaster in Rwanda, Africa. Two tribes, Hutu and Tutsi, fought each other and over 2 million people became refugees. Architect was surprised to see the shelters and refugee camps, organized by the United Nations High Commissioner for Refugees. People are so poor, and they were freezing with blankets during the rainy season in the shelters built by the U.N.H.C.R., that were just providing a plastic sheet and later - aluminum pipes, barracks, so refugees had to cut the trees to frame their tents, which led to big, heavy deforestation and environmental problem. Ban wrote to the U.N.H.C.R. several times before flying to Geneva. There, he met the organization’s senior physical planner, Wolfgang Neumann and proposed his idea to improve the situation using recycle paper tubes because it is cheap and also strong. 50 units were built as a motoring test for the durability, moisture and termites.

And then, year afterward, 1995, in Kobe, Japan, was a big earthquake, nearly 7000 people were killed and all the city was burned in a fire after that. Around 300,000 people were displaced and most of them were forced to live in shabby, crowded, cramped tents with very poor plastic sheets for a long time, so Shigeru Ban made a paper tube shelter for them. And in order to make it easy to be built by students and also easy to demolish, beer crates loaded with sandbags were used as a foundation. As is typical for Ban's humanitarian projects, each shelter cost less than $2,000 and took a single day to construct; according to Ban, over 50 units of the shelters were built over during the summer, mostly by volunteers. And after that, architect with his students began to build church out of paper tubes. It was meant to stay there for three years, but it stayed there 10 years because people really loved it.

Every temporary architecture can become permanent, if it is wanted by people and erected in compliance with building codes. «Even the temporary buildings I've made out of paper have sometimes turned into permanent ones, including the church, because even when dealing with paper, we follow local building codes and work with a good structural engineer. And the structures erected by a commercial developer may turn out to be temporary, even if they are made of concrete", says Shigeru Ban in interview for Bird in Flight.

Ban also mentions the importance of aesthetics in constructing homes for refugees. He says, "Refugee shelter has to be beautiful. Phychologically, refugees are damaged. They have to stay in nice places."

Ban offered aid to Ukraine back in March. The cardboard pipe partition systems developed by him were installed in gyms and other large premises where Ukrainians fleeing the war lived. In

September, the architect came to our country to give a lecture and present another project — cheap houses for displaced people: in theory, such housing can be assembled in a few weeks. This is a prefabricated panel system. The panel is made of foam core, Styrofoam - it is used for insulation of houses and inside the cardboard boxes. From outside, it is protected by fiberglass and plastic. The panel is lightweight and does not transmit heat. Actually, this technology is not new, it has been used to create boats. Ban just used it for construction. Architect also met with the mayor of Lviv, Andriy Sadovyi, discussed with him his idea of quick construction of housing. Sadovyi even showed the area where prototype can be built, but more than two months have passed and there is no news about the building of shelters.

I think we should appreciate every help from world famous architects and bring their modern techniques in our architecture, especially when it comes to providing quality and cheap housing for refugees. Also we have to have a concern with the environment in developing, allowing sustainable materials. Reducing waste, working with recycled materials – it is tendencies in modern world. Shigeru Ban`s architecture is perfect definition of sustainability. His humanitarian aid projects, his encouragement of the use of local materials, development of the use of paper in architecture can guide temporary building designs and architectural designs in better future.

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Ursu I. A.

GRAPHIC DESIGN AS VISUAL INTELECT

Language Advisor – Asst. Prof. Cebotari S.

GRAPHIC DESIGN AS VISUAL DIALECT

Letters and typefaces, signs and symbols are unit of visual representations of verbal language. They create sounds and exude emotion; they trigger personal responses in readers. For designers, kind could be a tool and a fetishistic object kind resonates on the farside the plain. Here, we have a tendency to see kind pilfering is examined as each associate degree material possession offence and a private violation. Type names usually exemplify the values imbued in kind by their designers. And letters themselves area unit charged with means as vital as any piece of art. Type, imagery, and letters speak even as loudly because the voice.

You wouldn’t think but typeface piracy is a big problem

It’s safe to assume that the majority folks don’t have any concept that fonts, like music or movies, are protected by holding laws, they typically go with a hefty price tag, and that they are auncom. Monly at risk of unjust adaptation and outright stealing.

This is sensible if you think that regarding it. Type forever has been a preferred artefact, and is profusion across our digital devices has boosted demand. Typefaces area unit of monumental importance within the mobile era, essential each as a way of clearly human action info and identifying one app or web site from another. Even folks on the far side style world have full-grown conversant in the rhetorical variations of sort design, and more and more selective regarding the fonts they use. Fluency, appreciation, and preference have conspired to show sort style into a profitable business.

It is onerous to mention if rates of plagiarism and outright piracy have accumulated, however this abundant is clear. In associate degree era once files are shared with the press of a mouse associate degreed anyone with a laptop is an ersatz setter, infringement of copyright has never been easier to commit. The laws protective sort are weak at the best, however designers are fighting back with lawsuits and buying models geared toward dissuading thievery and changing would-be pirates into customers.

When the time comes for shortly -to-be oldsters to call their newborns, there are lots of books and websites to assist realize the modern or distinctive denomination. A fount may be a kind designer's baby, nevertheless there's cypher on what to call it finally those months of labor. If an enchiridion were out there, it would provide identical knowledge as this paraphrase from the précis to a preferred kid naming site. There are loads of pressure in selecting a font name. it'll be one among the primary things folks study your typeface and can be a neighborhood of its life. Although naming your new face may be a intimidating method, it can even be fun. Some designers discuss and analysis – and argue regarding the name till it's discharged. Different designers simply hear a reputation and love the sound. There are regarding as some ways to select a reputation as there are names themselves. Even if naming a font isn't truly that troublesome, the result's important. It should not be too loony or obscure or jittery. One among the additional typical choices is to call it when a living or dead loved one or friend or a true life or fictional person. Or to play it safe, whereas insuring a small indefinite quantity of immortality, it would simply be as straightforward to use the designer's name it's done all the time. The following names ar unforgettable Robert Granjon, Philippe Grandjean de Fouchy, John Basker-ville, Claude Garamond, state capital Simon Fournier, Aldus Manutius, Nicolas Johannes Vilhelm Jensen, and after all Giam-battista Bodoni - as a result of revivals of the first sorts that they designed or punch-cut bear their sur-names. And by virtue of those names being thus outstanding, their brands live to tell the tale from one iteration to successive and one generation to successive.

If these same fonts were anonymously formed, they may are forgotten way back. However, a reputation name makes a known typeface or the other way around. Provides pedigree, sort of a signature on a painting. History remembers people who are notable.

THE MANY MEANINGS OF K

In the alphabetic hierarchy A gets all the eye and Z comes in last, however the foremost symbolically guileful of all the letters is K. though typically called soft and silent, once exhausting it's the strongest of the twenty-six, not simply in English however in German too. The look, sound, and weight of K are thus keenly seasoned nevertheless typically unnoticed, it is time to pronounce this K-day and kindle a sort of celebration for the kingpin of complete letters. there are such a large amount of ways in which folks have capitalized on K: Henry Chadwick, creator of the venerable baseball box score, selected K to symbolize a out as a result of it absolutely was the last letter in stricken as in “struck out”. It’s stuck like tar for over 100 years. In Franz Kalfka’s The Trial, Josef K is inactive by 2 unidentified agents from associate degree un-specified agency for associate degree unspecified crime. The agents’ boss later conducts a minitribunal within the space of K’s neighbor, Fräulein Bürstner. K isn’t alienated, however, however left free and told to wait directions from the Committee of Affairs. K-rations were fictitious by Dr. Ancel Keys (from that the K derives) in 1941. The govt appointed him to style a nonperishable, ready-to-eat meal that might slot in a soldier’s pocket as a short-duration, individual ration. Keys select grocery store foods that might be cheap and supply energy. “The meals solely gained palatable and better than nothing ratings from the troopers, however were palmy in relieving hunger and providing adequate energy”.

MARKING INDECENCY

X is that the sexiest letter within the alphabet think about 2 individuals and tour legs tangled -and actually one in all the foremost symbolically various. X is that the sign of the kiss in xoxo (kisses and hugs). it's numeral ten, It substitutes for a Signature (as in build your X). It locates treasure on a map (X marks the spot). It factors into mathematical equations (a + b=X). it’s a word form for additional strength. It’s short for excision. Iris prefix for the sound barrier-breaking experimental craft the X-15. It represents the amount of strikes in each baseball and bowling. It substitutes for Christmas (Xmas. A former partner is Associate in Nursing “ex. a protracted time past, once they were written on brew kegs, Xs indicated the number of tax paid by edifice owners- and in fact, speaking of brew, Dos Equis involves mind. And let’s not forget Malcolm X- the X unacknowledged and excised the family name of the white slave-masters World Health Organization brutalized his ancestors. The most recognized X is that the one used for the MPAA film classification system. This letter sign, that prohibits «persons underneath eighteen « from admittance to any film that includes graphic sexual or violent content, began within the us in 1968, exchange the critical Flays Code. However, X was a part of the UKs Board of Film Classification, beginning in 1951 (replacing Associate in Nursing I for Horror). This X rating stopped persons younger than sixteen from being admitted into chanceful films; it absolutely was later replaced by R18 (Restricted 18), that exed out the X altogether.

MORE THAN A COLOR

When anger turns to fury, does one see red? Probably not. «Seeing red is just a image. It vividly describes rage, however unless you're susceptible is to acne skin condition during which the blood vessels dilate, ocular chromatic amendment Ate no. triggered even by as intense an individual's feeling as anger. “Seeing red” is simply clever play that colors the means we predict of anger. Red may be a powerful modifier. Is it doable to be caught virtually red-handed, perhaps, if you were stealing from farm-Cr McGregor’s strawberry patch, however otherwise guilt doesn't physically alter hand color. Nonetheless this literal figure of speech refers back to a time once being discovered with blood on one's hands once committing a violent criminal act was a positive sign of guilt. A few colors is a lot of vivid than blood red. Red has a lot of literal references than the other color and larger symbolic power--good and bad-than the other hue, as well as black. Simply contemplate a number of the foremost common associations – blood, death, revolution, love, sex, envy, heat, and fire. “Red hot” is that the most intense of heats. «Redneck « is that the lowest of social categories. “Red flag” is that the anticipation of trouble. Rudolf the “Red-Nosed” Rangifer tarandus is 1st among reindeers. Then there's the city district, the girl in Red, very little Red Riding Hood, Red Devil, and red state. To single out suggests racial discrimination and discrimination whereas a NGO is symbolic of emergency medical service. The red defend of the NGO represents “the blood that was shed by Deliverer for our sins”. Red signs area unit the foremost visible and powerful on road or street. Red pencil means that deletion, whereas a day, derived from medieval times once church calendars declared holy days in red, means that nowadays may be a special day.

MORE THAN AN ALBUM COVER

Boston’s hit song “More Than a Feeling” has long been a frequent presence on flick soundtracks and at wedding receptions. even as instantly recognizable, though, is that the cowl of the name initial album on that the song seems. Designed by Paula Scher and illustrated by Roger Huyssen for Epic Records, the quilt includes a loyal following equaling the long-lasting art for The Beatles’ Revolver (designed by Klaus Voorman) and Cream’s Benjamin Disraeli Gears (Martin Sharp). Album covers typically carry affectional associate degreed symbolic weight however what's it concerning guitar-shaped spaceships fleeing an exploding planet Earth on Beantown that creates the image thus special? Scher, United Nations agency once designed covers associate degreed worked as a stage director for major artists like The Rolling Stones and Maynard Ferguson, admits she’s “mystified” by the continuing interest during this album package. “The Beantown cowl was designed in 1976 and is currently cardinal years recent”, she says, “It was, and still is, in my opinion, a mediocre piece of labor”. Yet the album has endured: the guitar-ship has been recurrent on sequent records and as backdrops on concert stages.

Album pictures do not continually end up as planned- their quality is usually a matter of temporal order. Take the quilt for Boston: Tom Scholz, the bands instrumentalist and composer, wished a stringed instrument on the quilt, that in Scher’s inventive lexicon was a bromide. She and Epic Records product manager Jim Charney compromised with a guitar-shaped ballistic capsule. “The first ballistic capsule cowl plan we showed Scholz had a Beantown invasion of the earth, however

Scholz same that spaceships ought to be saving the earth, not assaultive. thus we have a tendency to came up with the Earth-blowing-up plan", she said.

CUTE AS A BUG

The adult arthropod, associate degree extinct marine invertebrate that flourished throughout the Paleozoic era, isn't-and can ne'er be cute. Its spiky, wrinkled frame is preternatural and "but-ugly"

But squint onerous enough and also the baby arthropod may be cure. just about any animate thing in its child state, even a dictyopterous insect, has charm by virtue of its diminutive options. size hides several sins. Nonetheless not all things infantile square measure a priori, Shirley Temple precious or Olsen twins sweet. The baby the Nazarene isn't cute; he is mystical. However, the baby in Look Who's falling is, or was la cute baby does not guarantee a cute adult. The word in question derives from acute. At some purpose within the nineteenth century, it became slang surely sorts of tempting traits and have become synonymous with adorable-in-the-extreme.

Routinely applied to humans and animals (although baby vegetables square measure quite cute too), extreme prettiness typically triggers the involuntary craving to hug in associate degree aggressive approach. for instance, bunnies, piglets, and puppies square measure therefore delectably cute we tend to may "just eat them up?" Likewise, parrots and parakeets wearing pirate outfits square measure each cute and funny. Cute is irresistible. Lennie little, the simple-minded character in John Steinbeck's Of Mice and Men, stroked a puppy therefore onerous he unwittingly squeezed the life out of it. though extreme, it represents the incomprehensible sensation several people have to be compelled to devour cuteness--to become one with it.

Cuteness may be a powerful tool within the visual manipulator's toolkit, right up there with sex. There square measure one or two of variations, though: basic cute (i.e., oozing with sweetness) and to a fault cute (I. Shirley Lemple in Glad Rags to Riches). Basic cute evokes the urge to carry the lovable issue for hours, whereas excessive (or radical cute demands stimulation on the far side the purpose of logic, triggering the same uncontrollable, irresistible want to squeeze, snuggle, and hug. I’m not aiming to examine the psychological phenomena or the philosophical constructs of cute, thought; rather, m involved with however cute imagination has evolved from the 20th to ordinal century.

SEEING RABBITS

On the primary day of every month the promise of fine fortune may be yours if you follow These instructions: At the precise moment of wakening to the fresh day, loudly say, “Rabbit rabbit rabbit”. A silly superstition? maybe. however what have you ever have to be compelled to lose? Not tempting fate is one reason why silly and high rabbits (hares or bunnies) square measure as prodigious in art and style as they're in life. suppose rabbit's foot. Paul Rand once aforesaid that a brand is sort of a rabbit’s foot – “And you do not mess with rabbits feet, he once chastened. But in art, the rabbit isn't perpetually an emblem of fine fortune. Rabbits serve several functions. There is the straightforward aesthetic pleasure of a superbly rendered animal, as in Albrecht Durer’s far-famed “Young Hare” (1502). There square measure the humane human representations that square measure accessible for youngsters, as in Beatrix Potter’s “Peter Rabbit” (1902). Rabbits square measure usually solid in comedic roles, like Bugs Bunny, and square measure commercially artful, as within the Duracell Energizer Bunny. There square measure dozens of brand-name cottontails--the most far-famed square measure Brer Rabbit, Jessica Rabbit, Roger Rabbit, the White Rabbit and also the March Hare, to call a couple of.

Speaking of brands, let’s not forget either the Trix Rabbit or the man-about-town Bunny (which started fatless as a stag as a result of the magazine was planning to be known as party. Then there is man of science, Jimmy Stewart’s six-foot-three-and-one-half-inch-tall invisible rabbit within the 1950 film of an equivalent name. The metamorphosed rabbit-man and rabbit-lady have long histories in literature, theater, and art.

CRACKING THE SMILEY

The emoticon or happy face is one in all the foremost unambiguous symbols ever designed. what is to not perceive a couple of bright yellow circle with 2 wide, oval eyes and a mark smile? It's goodness incarnate! however due to that restless rash of recent emoji, like associate degree infestation of hassle some bugs, the innocence of the happy very little guy has about gaseous. With presence comes scorn. With happy comes unhappy.

Now, emoticon is associate degree offensive visual commonplace as oppressive and overused because the phrase "have an honest day", Heresy, you say? Goodness be damned! It's time to put waste to a story. As Smiley's cosmology goes, doc Ball" (1921-2001), associate degree artist at associate degree ad agency in Worcester, Massachusetts, was commissioned in 1963 to style some public-relations argot that might gruntle the workers of the State Mutual life insurance Company of America United Nations agency were nervous regarding their futures as a result of their company incorporate with another. Mr. Ball John Drew a smiling orb that he later refined into a universal image of goodwill. However, emoticon and frown face doodles had been used as signatures on personal letters, salutation cards and diaries before, and Mr. Ball might need been influenced by that. He was paid forty-five greenbacks and ne'er took out a copyright, however till he died in 2001, he command quite associate degree emotional attachment. consistent with the doc Ball World Smile Foundation, Mr. Ball believed "that everyone has the power to create a positive distinction during this world". Any effort to enhance the globe, "no matter however little, was worthy".

Remarkably, like different inexplicably standard novelties, as well as the Pet Rock and Hula-oop, the emoticon face triggered a nationwide craze within the early 1970s. Associate degree calculable fifty million emoticon buttons alone had been oversubscribed, and therefore the image appeared on multitudinous different merchandise likewise, several of that are still commissioned through Mr. Ball's foundation. In 1999 the US Postal Service issued a emoticon face stamp (I hope Mr. Zip nothing wasn't hurt).

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HUMANITIES

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SPECIFICS OF THE COMMUNICATIVE STRATEGY OF PERSUASION IMPLEMENTED BY WOMEN

Communication plays a vital role for everyone, its essence is the exchange of ideas, thoughts or information. Nowadays researchers pay attention to the study of gender speech behavior in order to identify the differences of men's and women's communicative behavior that can differ according to the communicative situation. Interlocutors may disagree on a certain fact or events and quite often the vision of some people is drastically different from the vision of others regarding certain situations. Persuasion is a form of attempt to influence the recipient and change thoughts, feelings, or further actions of others.

The relevance of the study is determined by the need for a thorough analysis of the specifics of the use of the communicative strategy of persuasion by women during their daily communicative interaction, considering the peculiarities of the women's communicative behavior.

The object of the study is communicative acts of interaction, in which the use of the communicative strategy of persuasion to change the recipient's opinion or encourage him to perform certain actions is revealed. The subject of the study is the means of implementing the communicative strategy of persuasion implemented by women in the communicative acts of English-language communicative interaction.

The purpose of the study involves a comprehensive analysis of the specifics of the strategy of persuasion implemented by women in the communicative acts of oral informal communicative interaction. The material of the research consists of 58 communicative acts extracted from 11 TV series and movies, which reflect oral English-language communicative interaction.

Communicative strategy is considered as "the implementation of the speaker's intentions in order to achieve a specific communication goal, the choice of effective communication moves and their flexible modification considering every particular situation" (Batsevych, 2004, p. 118). Communicative tactics are its important components and related to the speech strategy implementation (Oliiar, 2016, p. 73).

Communicative strategy is a general intention, a set of speech actions aimed at solving a particular communicative task. Tactics are the consistently solved tasks within a certain strategic line and include a range of communicative moves. In the process of communicative interaction, communicants use both communicative strategies and tactics. However, the selection of strategies and tactics depends on the situation and personal intention of the addressee (Gumperz, 1982, p. 29; Reardon, 1991, p. 1–2).

Persuasion is "the act of persuading somebody to do something or to believe something" (Oxford Learner's Dictionaries). It is a type of influence on the addressee's consciousness, appeals to his own critical thinking and is the selection of certain facts and conclusions in accordance with the purpose, logical evidence, which is aimed at causing the addressee to consciously accept the system of judgments / evaluations according to a different point of view of addresser (Stasiuk, 2010, p. 26).

In our study, we consider the communicative strategy of persuasion as a global one, which involves the use of the following communicative strategies and tactics in order to achieve the communicative goal:

– Argumentation strategy, which involves influencing the behavior or actions of the addressee in order to induce him to certain actions. This strategy is based on both rational and emotional arguments (Monastyrova, 2020, p. 178). Within the strategy of argumentation, we distinguish the tactics of objectivity and impartiality (or proof), tactics of reasonable assessments (the establishment of cause-and-effect relationships), tactics of contrastive analysis (by contrasting), tactics of emphasis (highlighting a particular speech point), tactics of illustration (the use of facts and devices).

– Attack strategy, which involves active speech actions directed against the recipient, often caused by hostile intentions. This strategy is aimed directly at the emotional sphere of the addressee (Shymanova, 2015 p. 39). Within this strategy we distinguish the tactics of accusation and insult.

– The strategy of self-defense, which is implemented through the tactics of justification, denial or refutation of negative assessments and expression of one's position, criticism of the opponent's views, reproach, etc.

– Self-presentation strategy, the purpose of which is to create a certain impression and maintain the speaker's positive image (Babych, 2019, p. 9). The strategy of self-presentation can be implemented through the tactics of identification, solidarity with the addressee, distancing, self-approval, etc.

– Discrediting strategy, which consists in gaining support for one's own position by discrediting rivals. This strategy can be implemented through the tactics of criticism and compromise, accusation, exposure, disclosure of negative facts, etc.

– Campaigning strategy that involves influencing the person's behavior/actions in order to encourage him/her to certain actions. Tactics typical for argumentation, as well as tactics of appeal and promises may be relevant for this strategy.

– The strategy of forming an emotional mood can be represented by the following set of tactics: tactics of unity, tactics of appealing to emotions, etc.

Research shows that the mostly used communicative strategy is the strategy of argumentation (39.66%). In particular, the tactic of illustration, which involves giving an example of a life situation, as well as creating analogies and metaphors that successfully describe the speaker's position, is quite typical for women. The following communicative act present the example of using the tactic of illustrating within the argumentation strategy:

– *Rosie: We just keep missing each other. Maybe we're just not meant to be.*

– *Ruby: Oh. Right. Let me just try and explain this in a language you might understand. Ship. Iceberg. Ship hits iceberg. Mayhem. Horror. Ocean of ice and then Alex on the last lifeboard. One space left. Is it Bethany? Or Rosie? Who's it going to be? (Love, Rosie, 2014)*

The communicative act shows the interaction where Rosie says that she doesn't want to take any more actions to establish relationships with the man she loves. In the responsive move, her friend Ruby presents her own argument by illustrating and providing an argument that has a logical basis, as it demonstrates an outsider's view of the situation and explains by analogy the communicant's idea. Ruby uses monosyllabic sentences reinforcing her statements with intonation: "*Ship. Iceberg. Ship hits iceberg ... Horror* ", as well as a lot of emotionally reinforced rhetorical questions: "*Is it Bethany? Or Rosie? Who's it going to be*".

Other frequently used strategies are agitation strategy (13.8%), attack strategy (13.8%) and self-defense strategy (12.07%). The strategy of forming an emotional mood (8.62%), the strategy of discrediting (6.9%) and the strategy of self-presentation (5.17%) are used by women quite rarely in specific communicative situations.

Thus, communicants use a communicative strategy of persuasion in order to effectively persuade the recipient. The persuasion strategy implementation involves the use of local communicative strategies and tactics that help to achieve the communicative goal. The analysis of communicative acts where women persuade the addressee to achieve the communicative goal revealed that argumentation is the most used strategy and provides the greatest power of persuasion. Women's persuasion is distinguished by its emotionality, which coincides with the linguistic stereotypes of women's communicative behavior. The prospects of the study are the analysis of the communicative strategy of persuasion implemented by men and the comparative and oppositional analysis of the peculiarities of the women's and men's implementation of the communicative strategy of persuasion.

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SUBJECT-SEMANTIC CLASSIFICATION OF THE ENGLISH JOKES ABOUT MEDICINE

Humor is an integral part of any culture and one of the concepts of the national world picture, a certain means of national identification. An anecdote, as the most productive folklore genre, occupies a special place in the multifaceted family of humorous genres and is the subject of linguistic, cultural, semiotic, sociological, psychological, historical and political analysis. It "responds to the painful and urgent problems of today, covering almost all spheres of social life and expresses the worldview of certain society segments, people's vision of reality that surrounds them, as well as their attitude to it, thus becoming a kind of social consciousness reflection" (Bassai, 2016).

The anecdote, as the brightest and most dynamic genre of humorous discourse, has great potential for forming a foreign language and communicative competencies, where the field of medicine is a general cultural concept and attracts close attention, especially in times of pandemic.

Considering the paradigms of the English anecdote in the field of medicine, we can distinguish several most popular semantic branches:

1. *Doctor and patient jokes*;
2. *Specialty doctor jokes*.

Let us examine examples of English jokes based on wordplay in each of the branches.

The first semantic branch is *Doctor and patient jokes*, where "*doctor*" and "*patient*" are collective characters, representatives of a typical situation when a person needs some medical care, for example:

(1) Why did the alcoholic go to the doctor's office? Because he thought there would be shots (Tibbals, 2006).

In anecdote (1) the comic situation is based on the ambiguity of the noun *shot,* which in this context can be interpreted as "*an injection*" and as "*a serving of alcohol*". This ambiguity of translation allows the noun *shot* to belong simultaneously to both everyday and medical discourses, which creates a play on words and forms semantic connections with the words of the corresponding discourse ("*an alcoholic*" - everyday discourse, "*a doctor*" - medical discourse).

The following joke is also based on this semantic phenomenon:

(2) A nurse, a doctor, and an anti-vaxxer walk into a bar. The nurse sits down at the bar and says, "I'll have a Bloody Mary!" The doctor sits next to her and says, "Give me a rum and coke!" The anti-vaxver says, "No shots for me" (Tibbals, 2006).

It is a play on the phrase with the noun *shot*, namely, "*No shots for me"*, which in everyday discourse has the equivalent "*I will not drink spirits*", and in medical discourse – "*No vaccinations*".

(3) I told my doctor: "Yoga is the best antidepressant available." "Sounds like a bit of a stretch", he replied (Tibbals, 2006).

The following joke plays on the noun *stretch*, namely, its direct equivalent "stretching, a relaxed posture" and the idiom *stretch the truth* means "*to exaggerate*", and understanding of the joke is complicated by the fact that part of the idiom is omitted.

The second semantic branch is *Specialty doctor jokes,* which may include disease-specific vocabulary, namely:

(4) What did the woman with dissociative identity disorder tell her psychologist? "Let me be Frank with you" (Tibbals, 2006).

The funny effect here is achieved due to the play on words, because *Frank* can be translated both as the male name *"Frank"*, which is an indicator of illness, and as the adjective *"frank"*, where the phrase "Let me be frank with you" is a typical patient's phrase at a psychologist's appointment.

The next joke also refers to a psychologist, but the comic here is based on polysemy, namely:

(5) A patient and psychologist were meeting for the first time. "I think I'm a goat," the patient tells the new doctor. "All right," the doctor says as he jots notes down. "And how long have you had this feeling?" The man told him, "Ever since I was a kid" (Tibbals, 2006).

The noun *kid* has the equivalents of *"a child"* and *"a young goat"*, which forms the double meaning of the expression "*Ever since I was a kid*", on which the funny situation is based. It can be translated by the phrases *"Ever since I was a kid"* and *"Since childhood"*.

(6) What did the journalist say to the psychiatrist? I'm the press (Tibbals, 2006).

In this joke, the funny situation is based on phonetics. The expression *the press* [ði: prɛs] sounds in colloquial English almost like *depressed* [dɪˈprɛst] *"depressed"*.

(7) I asked a surgeon if he could give me something for my liver, he gave me half a pound of onions (Tibbals, 2006).

In this example, the comic situation is based on the polysemy of the noun *liver*, which can be interpreted as a human organ or as food.

Thus, the main characters of medical jokes are the doctor and the patient; typical situations are medical consultations, medical procedures, situations related to some medicine intake, and treatment process itself. Among the main means of creating a comic situation in the English medical anecdotes based on wordplay are the following: the comic is based on phonetics, homonymy, polysemy, morphological changes and changes in the word structure; proverbs and idiomatic expressions are ridiculed. The vast majority of jokes are anthropocentric.

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THE ROLE OF ONOMATOPOEIA IN THE TEXT OF THE ENGLISH NOVEL "HARRY POTTER AND THE PHILOSOPHER'S STONE" BY J. K. ROWLING

This work is devoted to the analysis of onomatopoeia usage in the English fiction novel "Harry Potter and the Philosopher's Stone" by J. K. Rowling. In this work the concept of "onamatopoeia" is considered in detail. The types of onomatopoeia were specified according to the classifications of a number of foreign scientists.

The phenomenon of onomatopoeia is observed in many languages of the world. First of all, onomatopoeic lexis is a part of the science called phonosemantics. Phonosemantics investigates the sound-imaging system of the language, phonetic motives, studies the phenomena of sound-imaging as a stable connection between the feature of the denotation object and phoneme. The main notion of the "phonosemantics" concept is sound symbolism and onomatopoeia (Nasikan, 2016, p. 163).

The separation of any science into a separate branch is directly related to the definition of its object, subject, aims and conceptual apparatus. In turn, the main objective of phonosemantics is to study sound representation as a necessary, repetitive and relatively phonetically motivated connection between phonemes and the underlying feature of the denotation object (Nasikan, 2016, p. 163).

Phonosemantics can be defined as an interdisciplinary science that borders on phonetics (in terms of expression), semantics (in terms of content), lexicology (in terms of both expression and context), psychology (the theory of perception) and combines the elements of these disciplines. The main means of phonosemantics studying are sounds, sound ranges, their phonotactic combinations, words and prosody (Kalita, 1998, p. 131).

The word "onomatopoeia" originates from the Greek language (Greek ὀνοματοποιία from ὄνομα "name" and ποιέω "to create"). Onomatopoeia can be found in all languages of the world, and some linguists believe that the first words spoken by a man were formed through sound imitation. Because direct imitation facilitates easy understanding of meaning by the listener, it is the most obvious way to describe the actions and animals that made up most of the conversations between early humans. These primitive sounds have evolved over time, remnants have taken root in modern languages, and some have become words that we do not usually consider onomatopes, a special class of words which differs from others by a specific denotation, i.e. an iconically created linguistic sign that is associated with the characteristic of their meaning (Kroupová, 2016, p. 149).

Onomatopoeia is a phenomenon that is observed in a large number of languages. Mentioning the concept of "onomatopoeia", it is impossible not to point out that onomatopoeic vocabulary is a part of a science called phonosemantics. This discipline studies the sound system of a language.

In the context of the study of the onomatopoeia phenomenon, much attention has been paid to the relationship between a sound and its meaning and the study of arbitrariness (the absence of natural connections between the signifier and the signified) and iconicity (the identity of sound and meaning). Many scholars have tried to identify the nature of onomatopoeic lexis.

Onomatopoeia occupies an important place in the creation of literary texts, as it represents a solid layer of the literary language vocabulary. Thus, onomatopoeia is one of the most effective ways to enhance expressiveness and create aesthetic uniqueness of a work of art.

Onomatopoeia is used in a work of fiction as an additional means of expressiveness, which clarifies the phenomenon, object or feature described by other linguistic means, and thus actualizing them.

No writer, no master of fiction-writing, regardless of the manner of their work, themes and genre of works, can do without the use of onomatopoeia. After all, any work of art is a sequence of sounds. Usually onomatopoeia can be spotted in poems, novels, advertisements and comic-books. Children's books writers also often use this stylistic device. Onomatopoeic words help the author to provide sound support for the fictional text in the work. Words are used to achieve a special effect and to develop imagination while reading.

The material of this study is the novel “Harry Potter and the Philosopher’s Stone” by the famous modern British writer J. K. Rowling.

A novel as a literary work can be described as a fictional prose narrative of considerable length that describes a certain experience through a connected sequence of events. A novel can describe both situations that could have happened in real life and imaginary plots. The novel has several main genres, including romance, mystery, science fiction, fantasy, western, horror, thriller etc.

This fiction novel contains cases of onomatopoeia usage, which will be considered in accordance with Hugh Bredin’s classification, who distinguished direct, associative and exemplary onomatopoeia.

Thus, direct onomatopoeia is a lexical unit imitating the sound of an object. The following examples of direct onomatopoeia usage can be distinguished in the work studied.

(1) “*Harry pulled a wizard cracker with Fred and it didn’t just* ***bang****, it went off with a blast like a cannon and engulfed them all in a cloud of blue smoke, while from the inside exploded a rear-admiral’s hat and several live, white mice*” (Rowling, 1997, p. 103).

In this case, the example of direct sound imitation is “bang”. The author used this word to express the sound that a firecracker makes.

The second type is associative onomatopoeia, it is connected with the sound associated with the object indicated by the word.

(2)"Then – ***SMASH!*** *The door was hit with such force that it swung clean off its hinges and with a deafening crash landed flat on the floor"* (Rowling, 1997, p.103).

This passage demonstrates such an example of the use of associative onomatopoeia as "smash". This word denotes a movement with great force that resulted in a blow. Actually, the author clarifies this collision in the next sentence.

An exemplary onomatopoeia is a word imitating a real sound based on the physical effort the lexical unit expresses.

(3) " '*Funny stuff on the news,' Mr Dursley* ***mumbled"*** (Rowling, 1997, p. 103).

In this case, an example of exemplary onomatopoeia is the word "mumble", which expresses the way of speaking in an inexpressive and quiet manner.

Thus, we can say that sound imitation plays an important role in creation of literary texts as they represent a solid layer of the literary language vocabulary. Onomatopoeia is one of the most effective ways to enhance expressiveness, create aesthetic uniqueness and emotional expressiveness of a work of art.

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THE APPROACHES TO TEACHING ENGLISH GRAMMAR

Nowadays, when considering foreign language teaching, researchers increasingly emphasise the importance of speech competence, justifying this by the fact that the speed of speech production and the formation of speech strategies are more important than language literacy and that students can effectively solve almost any communicative task even with the lack of language means.

However, it should be noted that a limited vocabulary and a superficial knowledge of grammar are severe obstacles to developing speaking and writing skills and forming compelling reading and listening skills. Therefore, when teaching a foreign language to students, it is necessary to pay adequate attention to the language component, particularly the lexical-grammatical component of language competence. Since mastering the techniques of lexical-grammatical coding and decoding is the basis for language comprehension and production, special attention in the language training of the students should be given to the development of their ability to deal appropriately with a foreign lexical-grammatical code in the process of verbal thinking and reproduction.

The issues of teaching grammar have been widely covered in scientific and pedagogical literature. Numerous publications consider various aspects of grammar teaching, which predetermine teaching tactics, psychological and methodological features of mastering the grammatical aspect of the language (B. Belyaev, B. Benediktov, O. Myrolyubov, G. Kitaygorodska, S. Thornbury and others). The stages of the formation of grammatical skills were studied by P. Halperin,

O. Myrolyubov, E. Passov. Numerous studies have investigated how to acquire productive lexical and grammatical skills (V. Rutherford, M. Smith, S. Thornbury, J. Richards, H. Clahsen, R. Dirven). Maryna Tsehelska, PhD, director of Educational Centre "Interclass", pays much attention to developing effective strategies to enhance English language teaching in Ukraine. The basic principles of her methodology are under consideration in the article.

It is known that English language teaching comprises language systems and language skills (Clahsen, Felser 2006:33). Language systems (phonology, lexis, grammar etc.) refer to the knowledge about the language. To acquire knowledge is the first step in skill formation and is the basis for success in learning foreign languages at the beginning and advanced levels. Mastering a foreign language is not about knowing it is about doing, so grammar and vocabulary should be taught only for performing language skills (speaking, writing, reading and listening). That is to say, grammar is a knowledge that needs to become a skill, and teacher aims to find practical approaches and ways of teaching grammar (Dirven, 1990:20).

Nowadays, students are taught with either inductive or deductive approaches. The inductive approach implies giving the structure and asking the students to elicit a grammar rule from it. The deductive approach involves explaining examples and practice. When we teach deductively, it is more a teacher-centred approach because we explain first, give examples and then our students practice. The choice of approach depends on the situation. The deductive approach is mainly preferred by mature students who want to know how the language works. Although the teacher-centred approach is classical, it no longer works well with digital natives. It is a better approach for grammatical material that is not really difficult and can be easily perceived, understood, and applied. It can be used for any age group when the teacher has time to involve the students in the process. A learner-centred approach is necessary for skill formation since language must be used. We need to go from declarative to procedural knowledge in a learner-centred classroom. It is appropriate to deal with the rules by creating the learner-centred environment when students are interested in making the rule when they move from telling a rule to using it. In other words, when the skills are formed, we always go from accuracy to fluency It is advisable to teach both declarative and procedural knowledge since the situation of success is critical (Tsehelska, 2018:585).

According to Maryna Tsehelska, there is no sense in presenting all points of a grammar rule. She advises using the spiral curriculum, which is aimed at helping students deepen their knowledge gradually without the necessity of memorising anything. This method has much in common with the spiral curriculum proposed by Jerome Bruner as a teaching approach in which each subject or skill area is reviewed at intervals, at a more sophisticated level each time.

To achieve teaching goals, the spiral curriculum starts with elementary concepts that become more complex as students progress through their learning. They can do this because the curriculum adapts to the students' capabilities. Thus, everyone can move forward and better understand the essence of the subject.

Let us consider using curriculum when teaching English grammar in the Interclass system, proposed by Maryna Tsegelska. Every year the topics of the lower level are enlarged, new features are added, new connections are made. The curriculum for the level consists of several blocks. They can be presented in the form of cycles. Each cycle contains new and already studied material – categories. While students go through the cycles, they better understand the blocks – phases of learning. In Interclass they try to keep the students focused on language materials using senses such as sight, hearing and touch – visualisation. It is recommended to end each cycle with a product (project, writing essay, presentation, etc.). Then students are asked to close their eyes and remember the parts of the map – visualisation. If students don't learn all the material properly during this cycle, they will learn it further, as the curriculum is organised in a spiral form – phases of learning (Tsehelska, 2019:190).

In the Interclass system, the information is first categorised, then through visualisations, through speech support, students can build sentences. The visualisation also helps to develop thinking; it is essential for modern students who are used to perceiving information through pictures. Teachers of foreign languages should remember that digital natives can't remember the material right away. Therefore, the students should spend more time on comprehending the material after the lesson. And the teacher should supply the students with the content or presentations of the lesson, so that they can once again review and understand the material, as well as develop and provide a block of exercises for understanding what has been learned, ask to draw up or fill in a conceptual scheme that will highlight the key points of the lesson or establish the relationship between the concepts of the topic.

All things considered, it seems reasonable to assume that grammar knowledge and vocabulary are powerful but useless if skills are not formed. Skills are developed with a learner-centred approach. The inductive approach is more learner-centred since it engages students more and raises motivation. It is advisable to use a spiral curriculum since it has shown its effectiveness in the system of Interclass.

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REFLECTION OF RELEVANT CONCEPTS IN THE ENGLISH PROVERBS

Proverbs are known to reflect the very essence of the nation, its wisdom and centuries of historical experience. Studying and understanding the proverbs of a nation promotes a better study and understanding of its language and peculiarities. Proverbs belong to the genre of oral folk art, they reflect the attitude of people to many aspects of life, in particular to everyday life, work, leisure, family relationships, health and well-being, etc. (Varenko, 2013; Paziak, 1984; Bacchilega, 1994). Appropriate use of proverbs incredibly enriches speech, gives it a unique originality and artistic expressiveness.

This article considers the categories related to the concepts of "good" and "evil", which are represented in the folklore of almost every nation. These are proverbs, fairy tales, sayings, parables and fables reflecting the struggle of good with evil, about what is bad and what is good, etc. Proverbs of English-speaking nations are no exception, for example:

1. *Good can never grow out of evil* (Stevenson, 1987).

Good consequences come from good deeds and vice versa evil comes from bad deeds.

2. *Ill gotten, ill spent* (Stevenson, 1987).

In this example, folk wisdom teaches to earn a living, to receive material wealth in an honest way. Wealth only benefits its owner when it is obtained in a good, that is, honest and decent way.

3. *Good fame sleeps, bad fame creeps* (Stevenson, 1987).

This example shows that bad or evil deeds become immediately known, spread quickly, and with them notoriety of those who committed them. The bad is not forgotten, it sticks in the memory for a long time, unlike the good, which is silent, but quietly does its job, gradually gains fame and wins respect.

4. *Cast your bread upon the water; it will return to you a hundredfold* (Stevenson, 1987).

5. *Curses like chickens come home to roost* (Stevenson, 1987).

In the examples given above, there are proverbs with antonymous meaning. The first one teaches us to do good deeds and they will return to you a hundred times more good. Here an analogy with the modern expression about the boomerang effect can be drawn:

– If you do good, it will boomerang back to you, just as the second proverb tells us;

– If you do evil, it will also boomerang back to you. Bad deeds of a person turn against themselves.

6. *The good that men do lives after them* (Stevenson, 1987).

Actions that have brought good and well-being to others during a person's life will serve in their favor after his death, and will remain in memory even longer. The opposite statement is also true: the evil committed will live long after the person as their negative consequence.

7. *Honesty is the best policy* (Stevenson, 1987).

8. *Cheats never prosper* (Stevenson, 1987).

These examples reflect the concept of "good", "integrity" through the concept of "honesty", respectively "evil" through "deception". An honest way of life leads to harmony and happiness, respectful attitude of others, while deception can only bring troubles.

9. *A clean hand wants no washing* (Stevenson, 1987).

Hands in this proverb are a metaphor for the concept of conscience, that is, clean hands means a clean conscience. If your conscience is pure, honest, uncontaminated with bad deeds and thoughts, then there is nothing to fear, nothing to justify.

10. *A good name is better than riches* (Stevenson, 1987).

It is better to keep a good name and remain poor than to get rich by dishonest means, that is, it is better to preserve dignity, respect and trust of others than to enjoy wealth alone.

11. *Tell the truth and shame the devil* (Stevenson, 1987).

12. *It pays to tell the truth* (Stevenson, 1987).

In other words, to tell the truth is a good deed. Here we can see the expression of the concept of “good” through the concept of “truth”, which is even opposed to the greatest evil in the minds of the people - the devil. That is, if the truth is on your side, you are a decent, worthy person, we can say the good is on your side.

13. *Virtue is its own reward* (Stevenson, 1987).

Virtue is a positive moral quality of a human character, synonymous with honesty and integrity. That is, as in the examples above, the expression of the concept of "good" is demonstrated through the concepts of “honesty”, “decency”, which are components of this broad concept.

14. *The road to hell is paved with good intentions* (Stevenson, 1987).

This example shows that people often do things for the sake of others with good intentions, because they want the best for them, but they do not always turn out to be beneficial. In fact, they can have quite opposite consequences, so before doing “good” one should ask whether the person for whom it is done needs it.

Thus, the category of proverbs, which include the concepts of “good” and “evil” demonstrate the understanding of English-speaking nations of what is bad and what is good. In general, these concepts are universal and underlie every culture, so understanding of good and evil is international, and in Ukrainian culture, in confirmation of this idea, numerous equivalents of English proverbs can be found. They express the same idea using different metaphors.

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Keita S. M., Yazlovytska O. V.

THE ROLE OF STEREOTYPES IN THE ENGLISH MALE COMMUNICATIVE SPEECH

The study of the effects of gender-related factors on communication process is in the spotlight of modern linguistics and comprises the analysis of the influence of gender on the communicative behaviour of men and women. Communicative interaction provides the possibility to directly address to the communicative partner. Men and women, being the dialogue participants, due to their belonging to different gender groups, adhere to different forms of social and communicative behavior.

The relevance of the research lies in the necessity of studying the specifics of gender stereotypes influence on males' dialogical speech. The research object is communicative acts extracted from English film discourse and the subject is the stereotypes implemented in English dialogical male speech.

A gender stereotype is a system of stable and rehearsed ideas about the male / female representatives' roles in society (Mahdiuk, 2011, p. 8). The ways of conducting a dialogue may differ considering the men's and women's involvement into the communication process and the partner's reaction to the opponent's idea and further choice of strategies and tactics of communicative interaction. The tactics of women's dialogic speech can be described as "communicative cooperation", and men's – as "communicative rivalry" (Ashmore, 2006, p. 56).

In accordance with masculine stereotypes, men's dialogic speech has a range of features: tendency to ignore the interlocutor's opinion, frequency of interruptions, attempts to take a dominant position in the communicative exchange, tendency to initiate the conversation and to direct expression of intentions regardless politeness, attempts to solve problems within the communicative situation and give a piece of advice according to exclusively their own vision of the communicative topic (Key, 2015, p. 120-126).

The study of communicative acts extracted from English film discourse identified the following communicative patterns, which are inherent to men and coincide with the generally accepted masculine stereotypes:

1. Ignoring the interlocutor's message. For example, in the following communicative act a man takes a dominant position by means of an affirmative sentence that shifts the focus of attention to his own interest.

- *Bridget: What are you doing here?*

- *Mark: <u>I wanted to ask you the same question</u>.*

- *Bridget: I came with a colleague.*

- *Mark: So, how are you? ...* (Bridget Jones's Diary, 2001)

In this case, the stereotypically masculine manner of conducting a dialogue is manifested, namely the unwillingness to consider the communicative partner's question. The communicant made his own remark in order to change the topic of conversation and avoid answering the question.

2. Frequent use of shortened forms of words, such as *poss = possibly, coz = because*, and *asap = as soon as possible*, etc.

3. Conducting a dialogue using non-verbal means of communication, namely prosodic means of communication (the pitch of the communicant's voice).

4. Expressing feelings and thoughts through frank remarks without regard to tact. For example: “*In my opinion, this is the Possibly the worst book ever published*” (Bridget Jones’s Diary, 2001). In this expression, the men, regardless the rules of etiquette and friendly behavior, expresses his attitude to the presentation of his friend’s book that causes misunderstanding between the communicants.

5. The use of slangisms, vulgar words while communicating.

6. Expressing feelings and thoughts through frank remarks without regard to tact and social etiquette norms.

7. The use of short, concise sentences and a tendency to use imperatives.

8. The use of interjections to express emotions.

Thus, the results of study show that stereotypical masculine ideas are reflected in modern male dialogic speech. The lexical features of the male’s speech are the use of slang and obscene words that is the tendency to aggression. Syntactic peculiarities are reflected in the use of simple sentences, exclamatory sentences with a clearly expressed negative assessment of a certain subject, phenomenon or communicative situation in general, as well as the use of the imperative mood while expressing thoughts and ideas.

The study confirmed the theoretical data on the men’s communicative behaviour, namely the desire to dominate the interlocutor in order to achieve the communicative goal. The obtained results correspond to the generally accepted linguistic stereotypes of masculine patriarchal behavior represented by the willing to obtain a dominant position in communicative interaction. The prospects of the study are an in-depth comparative analysis of the peculiarities of male English dialogic speech in homogeneous and heterogeneous contexts.

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Konovalova A. R., Ptushka A. S.

GOALS SETTING AS AN EFFECTIVE MEANS TO IMPROVE FUTURE PHILOLOGISTS WRITING SKILLS

The integration of Ukrainian education into European space determines the modernization of contemporary education and the search for new effective solutions in future specialists training, in particular in the field of philology.

More and more school leavers every year choose to study philology, as thorough knowledge of the native language, often in combination with foreign languages, allows them to select a decent and engaging field of employment after graduation, including teaching, researching, translating, copywriting, content management, editing in the media and publishing houses, journalism, freelance, etc.

For the most part, applicants who take the decision to study philology are fond of reading and writing, they fancy processing information, analyzing it and drawing their own conclusions, strive to express their own opinions and create information products (Konieva, 2020; Kucherenko, 2009).

However, the process of obtaining higher philological education, in particular at the Department of Foreign Languages, is a complex and multifaceted process requiring a lot of time and energy. That is why some students who were not ready for it are expelled without completing their studies.

According to the aforementioned, teachers try to help students reach the ultimate goal and become real philologists, professional linguists with comprehensive knowledge of native and foreign languages. Often, motivation is such a "driving force" on the way to successful completion of higher education. That is why such scientists as S. Evans, S. Makarov, K. Tribble, and others have paid special attention to the process of goal setting, in particular for university students, strategies for achieving them and overcoming problems on the way to the ultimate goal in the context of goal setting in the educational process (Makarov, 1994; Evans, 2011; Tribble, 1996).

According to studies conducted by such scientists as L. Baibekova, R. Badger, R. Abbott, E. Locke and others, the greatest number of problems and difficulties for students on the way to obtaining higher philological education is associated primarily with the formation and improvement of writing skills (Baibekova, 2020; Abbott, 2010).

Thus, we are deeply convinced that it is the use of goal-setting during professional training that can help to establish the process of formation and further development of philology students writing skills, which will determine their highly qualified and promising future professional activity.

The process of future philologists professional training is characterized by the presence of compulsory and selective components, which include disciplines of general and professional training. All of them are interconnected and essential on the way to becoming a modern philologist. It is during the study of these disciplines that the formation of professional, general and integral competencies and the achievement of program learning outcomes prescribed in the educational and professional program takes place, which contributes to acquisition of professional competence by future graduates.

Goal setting is a process consisting of the following stages: determination of values, desires, goals, proper organization, and quality adherence to the developed plan. Goal setting in the context of the educational process of higher education institutions is the process of setting educational goals and objectives to be achieved as a result of professional training of future specialists. The process of goal setting in general, and in pedagogy in particular, is extremely complex and its effectiveness depends on the way of setting goals, the most effective of which, at the present stage, is SMART, which determines the specificity, measurability, achievability, realism and time-limited nature of each goal on the way to achieving the global goal, in our case, the formation of a highly qualified specialist.

We consider the peculiarities of the formation of writing skills at the Department of Foreign Languages to be the creation of a favorable pedagogical environment, in particular motivational, in the context of the development of oriented, free (creative) and academic writing. The specificity of motivating students at the Faculty of Foreign Languages to create their own written products is the use of traditional and modern types of tasks which interest future philologists on the way to overcoming the difficulties of free and effective thoughts expression through the text, understanding others through received records, demonstrating their own ideas, imagination, creativity, revealing abilities, practicing, applying the acquired vocabulary, grammatical knowledge.

The experiment on the use of goal setting to increase the level of writing skills among future philologists of the Department of Foreign Languages consists of three stages: initial (stating), main (practical) and final (control) stages. During the first stage, questions for the questionnaire are developed, students of the experimental and control groups are diagnosed by answering the questionnaire and pedagogical observation.

The main (practical) stage of the experiment should lie in the application of goal setting in order to improve the writing skills of future philologists of the experimental group while working on any topic necessary for the study of English as a discipline, the aspect of speech practice, performing certain exercises. Before starting to work on the topic, students must attend an online lecture on “Goal setting as an effective mechanism for the formation of professional competence”. At the same time, training in the control group should take place traditionally.

The results obtained during the control phase of the experiment will confirm that the implementation of goal setting in the context of future philologists professional training is effective, as it increases the level of students writing skills.

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FORMATION OF FUTURE PHILOLOGISTS KEY COMPETENCES BY APPLYING PROJECT-BASED LEARNING ELEMENTS

At the present stage of development of education in Ukraine, the issue of training comprehensively developed specialists who are experts not only in the chosen field, but also able to quickly adapt to changing living and working conditions, self-development and self-improvement, is extremely relevant.

Today, taking into account the level of technology development and the number of candidates for vacancies, in order to remain in demand in the labor market, modern graduates of higher education institutions (HEIs) need not only to have a lot of knowledge, but also the skills to apply them both in everyday (working) situations and in non-standard ones. The use of creative thinking and actions in combination with professional knowledge significantly increases the chances of attracting employers' attention and receiving decent wages (Baibekova, 2021; Fitsula, 2006).

Considering the aforementioned, the principle task of the university at the stage of professional training of future specialists, in particular in the field of philology, is not only to provide professional and general knowledge, but also to develop skills of creativity, critical thinking, etc.

Agreeing with such scientists as J. Watson, M. Frank, etc., we believe that it is possible to achieve comprehensive training of a modern type specialist through inplementing project-based learning (Frank, 2004; Watson, 2003). However, unlike the studies of these scholars, this work is devoted to improving the professional training of future philologists studying at the Department of Foreign Languages.

In turn, a philologist is a specialist whose professional activity is focused on a thorough study of languages, their structure and history. There are two types of philologists – theorists and practitioners. Theoretical philologists are mainly engaged in the study of ancient, dead languages. Philologists-practitioners devote time to constant knowledge improvement about languages and their structural frameworks, and often they are integrally engaged in translation or teaching.

The basic competencies of applicants for education in the field of philology who study at the Department of Foreign Languages are integral (application of knowledge in practice), general (principles of being - common to people with higher education in any field and “soft skills”) and professional (knowledge of the philological field, languages and literatures) ones. The formation of these competencies is characterized by the implementation of various activities and proper organization of training by both teachers and students.

Project-based learning, or the project method, contributes to the formation of certain competencies of students through their active participation in project activities. The project method is characterized by the presence of a stable structure, which includes problem statement, idea generation, prototyping, testing, results presentation.

It is extremely important that the projects implemented by students in the context of the educational process do not have to be extremely complex, because in most cases, short, interesting projects on a particular topic are enough to gain experience in establishing links between content and practice, for example, the elements of project-based learning include three stages:

1) Assessment. Identification of the key competencies formation levels in students of experimental and control groups.

2) Application of project-based learning in the experimental group in order to increase the levels of basic competencies of future philologists while studying at the Department of Foreign Languages.

3) Monitoring. Re-diagnostics of the core students competencies levels in the experimental and control groups and comparison of the results.

This structure of the study is believed to help find out how effective the introduction of the project-based learning elements in the educational process of students will be.

Conducting such an experiment, we can say with confidence that the results of the final, monitoring stage of the pedagogical experiment will confirm the fact that the implementation of the project-based learning in the educational process is effective and significantly increases the level of students key competencies formation.

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MEANS OF AUDITORY COMPETENCE FORMATION

Knowledge of foreign languages is an integral part of the society development. The process of a foreign language learning is a complex system that has its own closely interconnected structural elements. Listening as a type of language speech activity is an organic part of the process of teaching spealing skills, however, too much attention is usually paid to teaching speaking, and a relatively little of the classroom time is spent on the formation of additive competence (Shymkiv, 2015).

Listening competence is the ability to listen to authentic foreign language texts of different genres and types with different levels of content understanding in direct and indirect communication. The components of listening competence are skills, abilities, knowledge and communication abilities.

Bigich O. B. identifies the following psychophysiological mechanisms of listening, which work almost synchronously:

1. Speech hearing. It allows a listener to recognize the familiar in the process of perceiving the message and dividing it into syntagmatic parts. There is an intonational speech hearing, that is the ability to perceive and distinguish intonation, and a phonemic one, that is the ability to distinguish sounds and correlate them with phonemes.

2. Anticipation, or probable prediction of semantic content. Makes it possible to predict what will follow the beginning of a word, phrase, sentence, etc. There is structural (correlation of linguistic units in memory), linguistic (compatibility) and semantic (guessing the meaning of the text) forecasting.

3. Memory. All other listening mechanisms are based on memorization. Scientists define long-term, short-term and operational types of memory. Long-term

memory helps to check new information for compliance with the one that is already in a listener's language arsenal and mark it as familiar or unfamiliar. Short-term memory works for ten seconds, selecting the most necessary information at a particular moment in time. Operational memory works longer, just as long as it is necessary to understand a piece of information. The latter two types of memory can be trained, however, the first one is deepened only through the accumulation of information.

4. Articulation, or internal pronunciation. This is the process of converting sound or visual images into articulatory images, where the listener additionally perceives by ear his own pronunciation of what he has previously heard (Bilyanska, 2017).

Psychophysiological mechanisms, reception and anticipation, determine the structure of listening, which consists of three levels: motivational, analytical, synthetic and executive. At the first level, cognitive activity serves as a motive for listening, and providing optimal conditions for the formation of probable forecasting is its function. At the second, analytical-synthetic level, there are such stages of information processing as predicting the content, verbal comparison, establishing correspondences between syntagms, words, etc., formulating semantic units and, finally, making a semantic decision by synthesis and analysis. The last level, the executive one, is the recipient's response to the communicative situation (Shymkiv, 2015, pp. 88-89).

Listening process is usually divided into three main stages: pre-textual, or *Pre-Listening*, textual, or *While Listening*, and post-textual, or *After Listening*. Let us consider what kinds of processes take place at each of them (Lovchuk, 2022).

Pre-textual (goal setting, planning, activation of background knowledge): a) anticipation (preparation for listening, prediction of the content); b) predication (familiarization with the topic, the title of the text, prediction of the content, pre-teaching is also possible: a teacher provides additional information, lexical or grammatical structures); c) communicative task (a teacher pays attention to what needs to be done and focuses on the information that needs to be heard) (Vilmantė, 2009, p. 90).

Textual (attention to the selected elements, guessing about the content, forming mental images): a) presentation of the audio text (listening to the text, possibly several times); b) checking comprehension (checking the communicative task, clarifying how clear the text is) (Vilmantė, 2009, p. 90).

Post-textual (clarification, summarizing, revision of the content, personalization, checking the achievement of the goals, evaluation): a) development of communicative skills; b) creative exercises and tasks (Vilmantė, 2009, p. 90).

The number of audio material presentations, the volume and duration of audio material play a significant role in the formation of listening competence. The number of listening times depends on the purpose of listening and on the presence of certain difficulties in perceiving the message (Vilmantė, 2009, p. 90).

At foreign language classes, the means of forming competence in listening are audio aids, where the information is received through the auditory channel, and video aids, where the information is also received through the visual channel (Bigich, 2012).

Audiobooks and films also belong to the means of forming listening competence. At the initial stage of foreign language learning, pictures or illustrations, necessary auxiliary vocabulary serve as a support for further listening and can also be attributed to the means of forming listening competence (Bigich, 2012). Such supports contribute to the emergence of semantic guessing, increase the students' interest, facilitate memorization of the sequence of elements of the content of the audiotext, increase the accuracy and completeness of understanding, help to divide the speech flow into its constituent segments, and also, due to the visual analyzer, increase the amount of information that the auditory analyzer is able to miss (Bilyanska, 2017, pp. 296-297).

Thus, the mechanisms of listening are speech hearing, anticipation (probable prediction of the semantic content), memory (short-term, operational and long-term) and articulation (internal pronunciation). The structure of listening consists of three levels: incentive-motivational, analytical-synthetic and executive. There are three stages of listening: pre-textual (includes anticipation, predication and communicative task), textual (includes presentation of audio text and checking of understanding) and post-textual (includes development of communicative skills and creative exercises and tasks). The means of forming competence in listening are audio and video manuals, multimedia, computer programs, mobile applications, etc., audiobooks, films, as well as supports (pictures, illustrations, necessary auxiliary vocabulary).

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USE OF THE "TIKTOK" SOCIAL NETWORK IN A FOREIGN LANGUAGE LEARNING PROCESS

Social networks are one of the newest multimedia tools. Nowadays they perform many functions, one of which includes learning a foreign language. Researcher D. Pratiwi emphasizes that social networking is an effective media learning tool which can be used in the process of learning or teaching a particular language (Pratiwi, 2021, p. 362].

Social networks are a group of Internet applications allowing users to create and share content (Kaplan, 2010, p. 61). According to A. Bradley's interpretation, social networks are a set of technologies forming a potentially large community of participants in order to provide an opportunity to cooperate fruitfully with each other (Bradley, 2010).

Researcher A. Curtis notes that social networks are web platforms where participants can freely interact with one another, exchange information through text, images, video and audio (Curtis, 2011).

Although scholars define the term "social network" in different ways, all definitions in one way or another emphasize that social networks are designed for social communication, where users can create online communities to share information. Therefore, in the context of education, social networks can become a tool for communication between students in a group, students and teachers, facilitate access to educational materials for all participants in the process. Social networks belong to the same group of web applications and have five similar characteristics, which were identified by researchers A. Mayfield and J. Casmer (Casmer, 2012; Mayfield, 2008). The following characteristics are very important in terms of the learning process: social networks encourage students to actively participate in the learning process. Researchers note that most social networks have a "discussion platform" with the possibility to leave comments, messages or links to other resources (web pages or publications). In this way they facilitate communication between instructor and students (Casmer, 2012); social networks can be characterized by openness in terms of information exchange. Students can participate in discussions not only with the teacher or other students in their group, but also with other communities. Openness contributes to the generation of new ideas and broadening of horizons (Casmer, 2012); another important characteristic of social networks is effective communication. The majority of social networks have a notification system that allows teachers to respond quickly to comments or messages, as well as to monitor the appearance of new posts (Mayfield, 2008, p. 12); social networks allow the creation of learning communities. An online community, like a community in the real world, is based on the fact that its members share common beliefs, interests, or hobbies and adhere to common principles. Thus, the use of social networks in teaching allows to make the process student-centered, because their interests and preferences are taken into account (Casmer, 2012). Also an important characteristic of social networks is the ability to make links to other resources. Therefore, if a teacher is willing to add information to the main material, it is possible to use a link to another resource (Mayfield, 2008, p. 5).

Nowadays, there are many social networks that share the characteristics above and are actively used by foreign language teachers in the learning process. For example, Tiktok, Instagram, Twitter, Facebook, etc.

However, nowadays Tiktok is one of the most popular social networks that is rapidly developing and gaining recognition among Internet users.

Tiktok is a platform allowing users to express themselves through video content. M. Zorica notes that video is an educational audio-visual media acceptable for use to improve learning effectiveness (Zorica, 2014, p. 4094).

Using this platform, users can quickly and easily create unique short videos (up to a minute) to be shared on a social network. This application has gained popularity among users due to its unique functionality and algorithms that promote content and provide an opportunity to achieve rapid popularity and recognition. Tiktok features include adding music, stickers and video effects, voice change filters, beauty filters. The platform also offers the function of live broadcasts, which can be joined by all users of the social network (Afidah, 2021, p. 54).

Tiktok is an extremely effective network for learning a foreign language.

As it has been already mentioned, Tiktok is a social network based on the creation and distribution of video content. Since a video combines several channels of information transmission (image, audio, text, animation), the teacher can facilitate the learning process, choosing an individual approach to each student without wasting time. Tiktok multimedia is the ability to transmit information through several channels, which contributes to better memorization of the material. With the help of videos, the learner has the opportunity to study a certain material more deeply due to the functions of rewinding and forwarding, playback of content (Afidah, 2021, p. 55).

In addition, Tiktok fully complies with the principle of learning through entertainment, because the platform is interactive (that is, you can exchange comments with members of the social network, shoot video responses to comments, rate videos and communicate in private messages). It should be noted that the interactivity of the platform is not limited to the framework of a particular community, that is, a student in the role of a content maker can receive feedback from a net-speaker, which also has a positive effect on the development of foreign language skills (Afidah, 2021, p. 55).

Researcher C. Zhai emphasizes that Tiktok can be used not only as a tool for assessing students' acquired language competencies, but also as a tool for learning English outside the classroom (Zhai, 2021, p. 1441). Tiktok can be used both for creating content and for viewing it. Namely with the help of the application, a student can develop not only listening but also speaking skills. Due to the popularity of this social network, it is actively used all over the world, so it will not be difficult to find content in the target language that a student aims to improve. Based on the M. I. Zhadlak's classification, Tiktok can be defined a creative environment allowing students to create media content on their own, as well as a controlling environment that allows teachers to use the social network as a tool for creating, storing and disseminating their methodological developments (Zhaldak, 2012, pp. 35-36).

Summing up, the main concept of Tiktok is to create creative videos using audio and video effects and view such videos in the media feed of your account. With the help of the functionality of this social network, students can create their own video content in English, thus developing their communicative language competencies.

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SOCIAL ROLES OF WOMEN AND FEMININE QUALITIES IN ENGLISH PROVERBS

Today the status of women significantly differs from what it was in the last century, due to the fact that in most countries of the world women finally gained independence and equal rights with men. However, gender inequality still remains a problem that has yet to be overcome.

Specialists of different sciences, like linguists, lawyers, culturologists, sociologists, psychologists and others, deal with the problems of women's status in society. A large number of works are devoted to this issue (Lakoff, 1975; Pilcher, 2004; Zheng Xin, 2018).

A wide range of proverbs and sayings in many countries reflects a negative picture of the women world. The main analysis of this article is devoted to proverbs depicting positive female traits and positive roles that women play in society. We will focus on several categories: a woman as a mother or grandmother; a woman as a daughter and a woman's role in a man's life.

First, let us consider the most respected female roles - the role of mother and grandmother. This category is represented by the following proverbs:

– *"He that would the daughter win must with the mother first begin"* (Fergusson, 2001).

If a man has romantic feelings for a particular woman, and especially if he intends to marry her, he had better make a positive impression on her mother. This proverb demonstrates the important role of a mother in the life of her child, as well as the importance of a good relationship between a husband and his mother-in-law.

– *"The hand that rocks the cradle rules the world"* (Fergusson, 2001).

The example given above demonstrates the importance of a mother in raising a child. A mother who brings up a child determines its character and thus influences the type of society the next generation will create. That is, this proverb shows the role of a woman not only as a mother of an individual, but as a person who contributes to the future of society by raising a worthy new member of this society.

– *"A man loves his sweetheart the most; his wife the best, but his mother the longest"* (Fergusson, 2001).

This proverb indicates that one can love different women in different ways, but a man carries the love for his mother through his life. Therefore, this proverb is also dedicated to the importance of a woman-mother in the life of a man.

– *"Heaven is at the feet of mothers"* (Fergusson, 2001).

In this example "heaven" is understood as a place for righteous people, where they lead a carefree life and where they feel always protected and happy. Therefore, the proverb depicts life at the mother's side as an unburdened, carefree existence, and the role of the mother as a guardian of her child, regardless of how old the child is.

– *"There's no place like home except Grandma's"* (Fergusson, 2001).

The proverb above reflects the love of grandchildren for their grandmothers, because a grandmother is a woman who, together with her mother, takes care of the child and her well-being. Therefore, the proverb emphasizes the importance of such a female role as being someone's grandmother.

Positively colored proverbs referring to the role of a daughter in the family emphasize such female qualities as devotion to the family in which a woman was born, love and respect of a woman for her parents, the desire to preserve close family ties. This category is represented by the following proverbs:

– *"My son is my son till he gets a wife; but my daughter's my daughter all the days of her life"* (Fergusson, 2001).

The proverb represents the attachment of fathers to their daughters and vice versa. The emphasis is on the fact that a son, when he marries, becomes the head of another family and close family bonds are not maintained as with a daughter, who remains a child for her parents, even when she moves to her husband's house. Therefore, the proverb depicts not only the doting parents, but also a daughter's devotion to her family.

– *"Like mother, like daughter"* (Fergusson, 2001).

This proverb reflects the connection between a mother and her daughter, because in a family it is often a mother who brings up a daughter, and a father is responsible for his son's upbringing, so a mother passes on her knowledge, skills, abilities, character traits, instills certain habits and preferences. Thus, the daughter becomes like her mother, and a close connection between them is clearly traced.

The next category is the role of a woman in the life of a man. Proverbs of this category reflect a positive picture of the relationship between both sexes. They indicate that both men and women need each other for a happy, harmonious relationship, although they have different characteristics and habits. As examples, the following proverbs can be cited:

– *"Behind every successful man is a woman"* (Fergusson, 2001).

A woman has a nurturing and nourishing nature; she is able to control the heart and mind of a man, and therefore a woman always plays a big part in the success of a man. Thus, a woman plays an important role in her husband's well-being.

– *"A worthy woman is the crown of her husband"* (Fergusson, 2001).

The way a crown on a king's head makes his status clear, so a woman indicates to others what kind of a place in society her husband occupies. That is, looking at a woman, one can judge her man is. It is often considered by society that a wellgroomed, well-dressed and elegant woman is the contribution to a man being successful.

– *"A good husband makes a good wife"* (Fergusson, 2001).

This proverb means that if a man treats his wife well, she will do the same in return. Thus, it demonstrates harmony in the relationship between a man and a woman, as well as their interdependence.

– *"The family that prays together, stays together"* (Fergusson, 2001).

This proverb represents the idea that a family having common interests and does things together will be happier than a family in which each member is on his own. This proverb also demonstrates the role of an intelligent woman in a man's life, who can support any of his beliefs.

– *"A good wife and health is a man's best wealth"* (Fergusson, 2001).

This proverb also depicts the importance of a beautiful woman for a man, because a woman plays a huge role in a man's life, and therefore the level of his life and happiness depends on what kind of woman a man has relationship with. And, also, this example demonstrates the great importance of a woman's health, which emphasizes the significance of a woman in the life of a man and the family as a whole, because a healthy woman means a happy family.

– *"Husband and wife are one flesh"* (Fergusson, 2001).

This proverb indicates that men and women are equal to each other, that they complement each other, and thus depicts the importance of the role of women in men's life.

Summing up, having considered the most important roles women play in society, namely the role of mother, grandmother and daughter. Also, having followed the role of women in men's life, despite the fact that the roles of daughters and wives are often shown in a negative light, with manifestations of sexism, we have considered their significance and importance through positively colored proverbs and concluded that society, in fact, shows respect for their mothers, grandmothers, daughters and wives. As for women's positive qualities, it can be concluded that the society highly values the attractive appearance of women, their virtue and ingenuity.

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THE EXPRESSION OF SOLIDARITY THROUGH MULTILINGUISUM

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The essence of solidarity lies in the prominent feeling of moral obligation from an individual or society towards others. Solidarity has played a very significant role in the formation of societies as it has been a link between different socio-economic and ethnic groups in the larger scale of national and transnational culture setting. Many sociologists and economist look upon solidarity as a necessity for ensuring the permanent well-being of different societal members and different social classes. Their viewpoint lies in the fact that moral co-integration between individuals results in the creation of accepted rules and mechanisms for social being.

Language, on the other hand, is a means of verbal communication inside the societal or trans-societal group. The presence of common language, whether this is the native language of the speakers or non-native, allows for the beginning stage of interaction between individuals and groups. Multilinguisum, therefore, is an expansion of the individual's ability to communicate with different societal groups other than the ones that speak his or her native language.

Much of the discussion on this subject can be carried out through the lens of how the global multilingual communication setting adds to the presence of solidarity between groups of different cultures and nationalities. As an individual increases their foreign language knowledge, they become more susceptive of international information and begin bring more value the global viewpoint of events in comparison to the viewpoint which has been set by close groups or geographically close media outlets. This in turn reflects on the individual's behavior as they become more aware of a greater variety of viewpoints.

Multilinguisum is a necessity for solidarity in the global context because it is impossible to sympathies or be morally connected with someone you do not know. Intralingual communication is itself needed in order to spread awareness of global event and situations among foreign to one another individuals which in turn creates a moral obligation to one another which is solidarity.

There is a certain amount of literature on this subject that relates to information biases between societal and cultural groups. Knobloch-Westerwick, Mothes and Polavin (Knobloch-Westerwick, Mothes, & Polavin, 2020) study in this regard the bias towards receiving political information based on cultural belonging. From their results, we can induce that foreign language knowledge only widens the viewpoint of the individual without creating a bias towards non-domestic information sources. In fact, the bias remains in favor of the information received in the native language of the individual. However, there is a non-negligible effect of widening of the individual's perspective when it comes to their ability to receive information from sources in one or more non-native languages.

In reality, this intellectual widening comes from this individual's ability to increase the number of their communication channels with the outside world. Such channels may be non-domestic media sources and/or foreign person-to-person interactions. Kubey, Lavin and Barrows (Kubey, Lavin, & Barrows, 2001) study in this regard the different forms of internet usage and the effect of internet spread information on recipients. Schegloff (Schegloff, 1999) similarly discusses the frictions between language and social interaction between individuals. According to him language and the perception of speech play a vital role in the structure and formation of societal groups.

These ideas can also be related to solidarity between society. The formation of a moral bond which amplifies the feelings of societal closeness and intracultural empathy begins with the ability to communicate the information of real world events and situations. Solidarity, in turn, is a key concept in the continuation of communicative relationship because the lack of sufficient mutual moral bindings would result in the loss of benefit from the relationship on both sides. Therefore, without the actual presence of different forms of solidarity international communications would fail. In other words, if a certain societal group has lack of empathy and also lack of solidarity towards other societal groups, it would become communicatively isolated. Much of these principals apply to the formation of international law and international organizations and unions. Ever since the end of WW2 the global climate has been changing towards greater inclusiveness through solidarity. This is also reflected linguistically through the increased demand for foreign language knowledge and the globalization of economies.

According to Maynard and Peräkylä (MAYNARD & PERÄKYLÄ) this increase in interlingual communication can be linked to the biological functions of human nature. Maynard and Peräkylä describe language as both a cognitive and sociological phenomenta. According to their theory multilinguisum can be interpreted as a change in the cognitive psyvhological understanding of individuals as well as a change in their behavior when it comes to grouping. In other words, as people become more multilingual they naturally tend to become more inclusive from a moral but also from a cognitive perspective.

Their flow of ideas can be continued through introducing solidarity. Solidarity is in itself a greater form of inclusion. The presence of solidarity means that there is an existing bond between people and societies which does not only consist of plain practical communication or practical inclusion but also consists of empathetical moral obligations towards other human beings. Multilingusum, therefore, increases the range of solidarity to a point where solidarity can be seen as present on the global level.

On the other hand of the discussion, multilinguisum is related to foreign language teaching which inspires learners to be more susceptive to the globalized view of culture and society. Foreign language teaching is a widely discussed topic among academic and other journals as well as verbal discussions and even popular mobile applications today promote the advantages of learning a foreign language. Some examples of written materials in this field are Cargill and O'Connor (Cargill & O'Connor, 2006), Zahariev, Mihaylova, Monev and Dikov (Zahariev, Mihaylova, Monev, & Dikov, 2021), Zahariev, Ivanova, Angelov and Zaharieva (Zahariev, Ivanova, Angelov, & Zaharieva, 2021), Monev (Monev, 2015), Todorov (Todorov, 2021) as well as others. The learning of foreign languages in general provides an enhanced view of the world which increases the individual's ability to feel and express their solidarity through different forms of communication. Acceptance of broader means of communication through foreign language knowledge is the beginning of the process of widening the international inclusion of different cultures in one circle.

To conclude, I would like to express my gratitude to the conference organizers for allowing me to participate with my written work in this year's conference proceedings. I give my most sincere wishes for the future development of our relationship with Kharkiv National Automobile and Highway University. I would like to express my personal message of solidarity to the Kharkiv region and to the student, academic and non-academic staff members at the National Automobile and Highway University. I wish you all the best!

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USING INTERCULTURAL TRAINING TO CONTROL FORMATION OF INTERCULTURAL COMMUNICATIVE COMPETENCE OF PHILOLOGICAL STUDENTS

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The integration of Ukraine into the international space in all spheres of life led to an increase in the number of intercultural educational contacts and led to a revision of the targets for the level of students' preparation.

The main requirements for students are the ability and readiness to implement effective and productive intercultural communication with foreign-language interlocutors, the competence of a secondary linguistic personality that retains its own cultural identity and is able to act as a mediator of cultures.

We believe that one of the favorable conditions for the formation of the selected competence is the philological profile of universities, since it is within the framework of the named profile that the foreign language itself acts as a learning goal.

Intercultural communicative competence, relating to all components of foreign language communicative competence of philological students and including the following components: knowledge component, empathic component and skills component, is the ability of students to productively participate in intercultural communication with representatives of foreign cultures without losing their own cultural identity.

The study of the problem of controlling the formation of the said competence is reflected in the works of foreign scientists on the problem of controlling the formation of the named competence M. Byram [1], M. Lustig [5], L. Perry, L. Southwell [6].

However, according to the analysis of works on the stated issues, the problem of controlling the formation of intercultural communicative competence of philological students remains unresolved. In this work, it is proposed to use intercultural trainings as a possible form of control of the specified competence of students of a philological profile.

The concept of training, which entered the scientific thought relatively recently, is defined by us as a systematically implemented program of various exercises aimed at the formation and improvement of skills and abilities in a particular field of activity. Taking into account the component composition of intercultural communicative competence and the real purpose of training, we chose attributive training in the form of a cultural assimilator and empirical learning as intercultural trainings [2; 3; 4].

Attributive training, which involves the analysis of critical situations from the standpoint of an emic approach, that is, based on the ideas specific to each particular culture, proposed in the 60s of the last century by the American scientist E. Kinast, provides for reading or discussing critical incidents, in during which students choose one of four options for solving the problem. It is important that each answer option contains information about the culture of the country of the language being studied [2].

In line with teaching intercultural communication, critical incidents are brief descriptions of problem situations, which are based on misunderstanding or even conflict between interlocutors, carriers of different cultures, due to cultural differences between the interlocutors. Critical incidents do not represent cultural differences, they only describe the situation itself, its outcome, and sometimes the reactions and feelings of the interlocutors. It is assumed that cultural differences will be identified by students in the course of working with critical incidents [3].

Different situations can serve as a source of critical situations or critical incidents [2], in this paper it is proposed to use conflict situations between interlocutors who have a common language code (English), but who are representatives of different cultures (Ukrainian and American).

The teacher offers the student to get acquainted with the conflict situation, and then choose an explanation of the cause of the conflict / misunderstanding. If the students choose the presented explanation incorrectly, they continue to search for the correct explanation, if the correct answer is found immediately, then the students move on to another situation.

Let's look at an example of attribute training.

You are an exchange student in the USA. You get along with your groupmates quite well. You spend a lot of time together, go to the parties. Your birthday is coming up, and you want to organize a big party with a lot of food. You inform your groupmates about it. They are very surprised and ask you, "Why are you going to organise a party?" You do not know how to react to this situation. What is the reason of the misunderstanding arose between your groupmates and you?

A. American students are very rude.

B. In the USA a person who celebrates a birthday never organizes any parties, his or her friends do it.

C. Americans are not able to appreciate friendship.

D. Americans do not understand the importance of friendship as Ukrainians do.

1. You selected the first explanation (A). This is not the right answer. The Americans are always friendly, polite and optimistic. Come back to the situation and keep discovering the right answer.

2. You selected the second explanation (B). This is the right answer. In an individualistic culture based on freedom and individualism, people appreciate their own interests and try to achieve their own goals with no regard of the goals of the others. In this situation the idea of organizing the birthday party for friends is considered a manifestation of a collectivistic culture.

3. You selected the third explanation (C). This is not the right answer. Americans view friends as people who the Americans enjoy spending their time with. Come back to the situation and keep discovering the right answer.

4. You selected the fourth explanation (D). This is not the right answer. Ukrainians suffer from such stereotype prejudices about Americans. Come back to the situation and keep discovering the right answer.

We chose "empirical learning" as the next type of intercultural training. A distinctive feature of this training is the fact that this training involves the active participation of the participants themselves. The purpose of this training is to demonstrate to students real life situations with representatives of a foreign language culture and to implement their behavior in order to achieve mutual understanding with a foreign language interlocutor [2].

This type of training is represented by value-oriented role-playing games to choose a strategy of behavior in accordance with the values of both American and Ukrainian culture. Let's give some examples.

1) You are an exchange student at an American college. Your teacher has asked you to carry out a research project with the students who you do not like. What would you do in this situation? Explain your choice. What core American value is manifested in this situation? What core Ukrainian value is manifested in the situation?

2) You are going to participate in an exchange program between your university and an American one. Interviewers asked you about your strengths, goals and accomplishments. Answer these questions according to the core American values. What core American value is manifested in this situation?

3) There is an exchange student from the USA at your university in Ukraine. He was ill and missed some classes. You offered him your help. The exchange student did not accept it. What would you do in this situation? Explain your choice. What core American value is manifested in this situation? What core Ukrainian value is manifested in the situation?

In conclusion, we note that the development of the forms of control over the formation of intercultural communicative competence of a philological profile students has its own specifics and requires close attention from the teacher. The study of the features of both a foreign language culture and a native one should be an integral part of preparing students for the implementation of productive intercultural communication with foreign language interlocutors.

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ENGLISH JOKES ACCORDING TO THE STEREOTYPES OF HUMANITY ABOUT WOMEN

The anecdote has long been entrenched in mass culture (Kobyakova, 2006; Ptushka, 2008; Attardo, 1992). Nowadays no newspaper, no magazine, no Internet page is an exception and actively uses anecdotes in its publications. They are used as epigraphs, used to illustrate the problems of the present and simply told to one another willing to attract attention, to appeal to someone or to defuse a tense situation. The central stage in many jokes is occupied by a woman. Since ancient times, the role of a woman has been clearly defined and almost unchanged: a woman is a mother, a keeper of the hearth, a housewife (Koestler, 1964; Lakoff, 1987). But apart from that, women can lead the state, serve in the military arms on a par with men and, as they say, “stop a galloping horse” (Selivanova, 2006). Today, men and women are equal, but still in the texts of jokes the image of a woman as a weak person has been imprinted for a long time.

The word “anecdote” (Greek: *ane'kdotos* - unpublished) is of Greek origin, and can be translated as “not the subject to disclose”, was used in the meaning of rumors or gossip. The term acquired its modern meaning due to the book called “Secret History” by the Byzantine historian Procopius of Caesarea, written in 550 AD. This work contained fierce attacks on the Emperor Justinian, his wife and other prominent individuals living in Constantinople at that time. Native English speakers originally used their own version of the book’s title for similar secret or unpublished histories or biographies, and by 17th century the meaning of the anecdote was broadened to include any interesting or amusing personal story (Attardo, 1992).

The special features of the anecdote as a genre are that the narrator never claims authorship, the main character is often a well-known person, a politician, a cartoon character, a foreigner, or some collective image (a wife, teacher, blonde, etc.). In addition, it is characterized by ease of perception, conciseness and unexpected humorous outcome.

The phenomenon of gender stereotypes existence as a set of established ideas about the role of women, which allow them to be attributed to a certain group and perceived in a template, has various forms, one of which is an anecdote.

The most common examples where a woman has such character traits as talkativeness, mercantilism and low intelligence, for example, are considered to be stereotypes:

1. *How do you know when a woman's about to say something smart? – When she starts her sentence with, "A man once told me... "* (Meiers, 1980).

In this anecdote, by hinting, the thesis is presented that women do not possess a great mind, and everything a smart woman can say is reduced to a paraphrase from a man's words. This stereotype is too outdated, because now women have long been educated on a par with men, women can be successful scientists, make discoveries, etc.

2. *Wife: Darling, yesterday night I saw a wonderful dream – you were sending me expensive clothes and jewelry. – Husband: Yeah, and I saw your dad paying the bill* (Meiers, 1980).

This joke ridicules the mercantilism of women, the man mockingly replies that all the whims were paid not by him, but by the woman's father. The joke contains an outdated stereotype of women's self-interest.

3. *– Where is your credit card? – It was stolen yesterday. – But why do you keep so calm? – Oh, come on. The thief spends less than my wife* (Meiers, 1980).

This anecdote depicts women's wastefulness. Ironically, it is pointed out that even a thief spends less money than a wife during ordinary shopping process.

4. *Bryan had been married for 30 years. And he was ignored by his wife, Mary. Finally he made a decision to confront her with this problem.*

– *"Mary, admit it, come on», he said, «You married me only because of $5 million which my granddad left me, didn't you?"*

– *"Oh, you are so stupid, Bryan», answered Mary in a tired way, "I couldn't care less who left it to you"* (Meiers, 1980).

The fourth anecdote demonstrates such a trait of women as mercantilism and venality. Answering the husband's question about the inheritance, the wife says that she does not care who left it. This stereotype has long been imprinted in the minds of different peoples and continues to live in jokes.

Thus, depending on the inherent character trait, the image of a woman can acquire signs of low intellectuality, mercantilism, which indicates the stereotypical view of men about women.

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ANALYSIS OF FOREIGN LANGUAGE LEXEMS OF ROAD CONSTRUCTION TERMINOLOGY

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The study of industry terminology as fragments of general scientific terminology can be considered one of the main tasks of modern domestic terminology. In order to streamline the national road-building terminology system, there is a problem of analyzing the expediency of including a significant number of foreign words in its lexical composition.

The problems of the ways to form technical terminology systems are reflected in the works of M. Ginzburg, M. Zarytskyi, A. Koval, I. Kochan, N. Nikulina, T. Panko, L. Polyugy, L. Symonenko and others.

Our research is devoted to the analysis of borrowing terms of the road construction industry, namely to its thematic group "Theoretical studies in the field of road construction", subgroup "Engineering and geodetic surveys of highways" on the material of the textbook "Engineering Geodesy in road construction" (Kuzmin V. I., Bilyatinsky O. A.) [1].

The vast majority of the analyzed foreign language terms of road construction are internationalisms, which is considered a positive phenomenon. Linguists define the concept of internationalisms as "linguistic units of the lexical level used in many (at least three) unrelated languages" [2, p. 160].

A significant part of the terms in the defined terminology system are the words of Greek origin, such as:

- Geodesy (from Greek – geodesy) the science of measurements on the Earth's surface, carried out in order to study the shapes and sizes of the Earth, to depict the whole Earth or its individual parts on maps, plans and profiles, as well as to solve various engineering problems on the ground;
- Barometer (from Greek baros - weight, pressure and Greek μετρέω – to measure) – a device for measuring atmospheric pressure;
- Tachymeter (Greek ταχέος – "quick") is a geodetic instrument with

horizontal and vertical angles, as well as a thread rangefinder, designed to perform tachymetric surveying of the terrain;

- Stereoscope (from Greek στερεός (stereos), which means “solid, dense” and σκοπέω (skopeo, which means “to look, to see”) – a binocular optical device for viewing stereo pairs; allows us to see a three-dimensional image;
- Topography (from the ancient Greek τόπος - place; γράφω - writing) – geographical and geometric study of the area by conducting surveys (on the ground, from the air, from space) and creating topographic maps on their basis.

A significant number of analyzed terms are nominations of Latin origin:

- limbus (Latin limbus – belt) – a flat ring with strokes on the side surface that divide the circle into equal parts (degrees, hail, etc.);
- meridian (Latin meridies – noon) – a conditional line, trace of section ellipsoid by a plane passing through a given point and the axis of rotation of the Earth;
- globe (Latin globus – ball) – a cartographic image on the surface of the ball, that preserves the geometric similarity of contours and the ratio of areas;
- menzula (Latin mensula – table) – a field drafting table, which consists of a tablet, tripod and binding stand;
- reconnaissance (from the Latin recognosco – inspect) – preliminary inspection of the terrain in order to clarify the boundaries of the area to be surveyed;
- trilateration (from the Latin trilaterus – three -sided) – a method of building geodetic network in the form of triangles in which all their sides are measured;
- equator (from Latin aequator (diei et noctis) – “an equalizer (of day and night)” – a conditional line of intersection of the Earth's surface with a plane passing through the center of the Earth Earth perpendicular to the axis of its rotation;

Examples of borrowing from the French language:

- equerre (from French équerre – “angle”, “square”, “square”) – a device used to build right angles on the ground;

- Repere (French repère – “sign, starting point”) – a geodetic sign, fixing point of the leveling grid.

Some borrowings are from the German language:

- Cypregel (from the German kippen – to throw and French regle – ruler) – a geodetic device for drawing directions and determining distances and excesses during the menzular survey;
- Bracket – a cantilever support part or structure that serves for fastening on a vertical plane (walls or columns);
- crucible is a container for heating, drying or melting various materials, etc.

In addition to the above, the textbook under study contains some borrowings from English, Italian, Slavic languages, etc.

Taking into account the conducted research, it can be stated that borrowings to denote road construction vocabulary are represented mainly by Greekisms, Latinisms and words borrowed from the French language.

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INTERNET MEMES AS A SOURCE OF THE ENGLISH-SPEAKING CULTURE

The informational mass-communicational phase of modern society development intensifies and makes emphasis on the interest in new cultural phenomena, one of which is the Internet meme nowadays. This relatively recent phenomenon is the research subject of numerous specialists: its functionality is constantly evolving, and new genre forms are studied by scientists in many areas of the humanities and social sciences. World researchers, such as R. Dawkins, D. Rushkoff, P. Davison, L. Shifman, as well as Ukrainian scientists S. Tarasova, A. Ryazanov, have devoted their scientific works to the analysis of this phenomenon in various scientific fields (Ryazanov, 2018; Tarasova, 2019; Davison, 2012; Dawkins, 2006; Rushkoff, 1994; Shifman, 2012).

Internet memes are a relatively new phenomenon in the modern socio-cultural space. For the time being, there is a great diversity in understanding of the meme nature, its origin and forms of existence.

Internet meme is derived from a more generalized concept of a “meme”, first proposed by Richard Dawkins in 1976. In his work "The Selfish Gene" he introduces the term “meme”, by analogy with the term “gene”, and defines that a meme is a unit of information through which cultural heritage is transmitted. R. Dawkins considers the history of culture and the mechanism of ideological continuity through the prism of genetics and virology, using the concepts of a “virus” and “parasite” (Dawkins, 2006, p. 27).

According to this idea, memes as larger or smaller units of cultural information, driven by the desire to replicate and spread, capture human consciousness as a “medium”. A bearer of such a “consciousness virus” infects the consciousness of others with it, resulting in an "epidemic" as a mass infection with a viral idea.

Nowadays, the language of memes is gaining influence. Virtual and real communication merge, communication techniques used on the Internet flow into offline space. Memes affect the addressee in a complex way, their form is much more important than the content: verbal and non-verbal means merge and form a single whole. Internet memes are aphorisms of our time which express emotions, help to place accents correctly. Memes as a special communicative phenomenon are characterized not only by changing forms, but also by a regular increase in functionality. The possibilities of meme's influence on the audience are constantly expanding as the popularity of social networks grows, new media formats emerge and mass culture strengthens.

In this article we propose to analyze memes from the perspective of their influence on modern English-speaking culture. For this purpose, memes were considered as a tool of communication simplification.

The language of memes becomes an independent language: a person does not often even need to use verbal symbols to express their attitude to a situation, it is enough to refer to a well-known, for example, character meme, so that the audience may understand the context the author meant. Such a meme is so expressive that a simple layman does not need to know the history of the meme itself to know who exactly is depicted on it, thus such a meme does not require explanation.

For example, the meme "You can't spoil something if you don't do it" / Roll Safe", where a black man wearing a leather jacket puts a finger to his head, demonstrating the thinking process (Fig. 1). He has found a way to escape his problems and passes it on to others as a brilliant strategy.

Figure 1. – Meme Roll Safe: "Your bank account can't be hacked, if you don't use it."

This is a screen capture from the TV series called "HoodDocumentary", which was released in 2016 on British television. In one episode, the main character nicknamed Roll Safe describes his girlfriend, whose mind he admires. He demonstrates this with a distinctive gesture. Subsequently, users of English-language social networks drew attention to this moment, and in the winter of the following year it spread widely on the network and became a popular meme. But users gave it a different context: this meme is used when a statement or advice is considered obvious or meaningless.

Another meme which captured consciousness of mass culture is a "facepalm meme". It originates from a legendary space opera called "Star Trek". One of the main characters, Jean-Luc Picard, expressed his estonishment in one of the episides, thus creating a notable meme afterwards. The meme became so popular that it inspired users to embody it in a comic-book format, and later went offline as a material object. Online stores began to sell souvenirs: mugs, mouse pads, and even a collector's bronze bust of Picard's character demonstrating the famous gesture (Fig. 2).

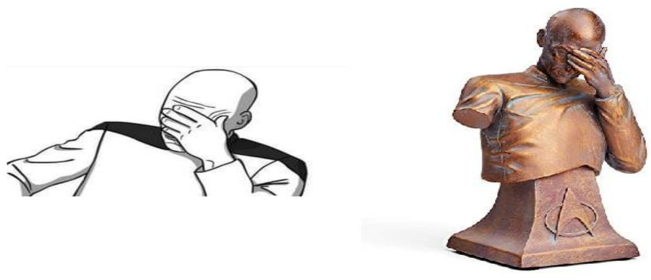

Figure 2. – A comic-book and physical embodiment of the meme “Facepalm”

Therefore, the meme “facepalm” is a clear example of how an element of Internet culture not only moved offline, but also received a physical embodiment.

Thus, an important feature of memes popularization is the fact that it is impossible to predict which visual (or text) object will cause the greatest response from the audience and will rapidly spread from user to user, acquiring new meanings. For example, there are several versions of the “facepalm” meme reflecting the same emotion (meme variations). The process of spreading is spontaneous and it is almost impossible to identify what exactly will be the trigger for further viral spread. This property determines the failure of “forced memes” concept: the information, deliberately made to gain the status of a meme, using methods of forced dissemination, is usually doomed to be quickly forgotten.

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“MOTIVATION AND SELF-DISCIPLINE”, OR HOW TO SUCCEED IN LEARNING A FOREIGN LANGUAGE

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Presume that by some fluke both of your friends began to learn a new foreign language at the same moment, starting literally from the very bottom. The only difference between them is that John decided to learn because of a terrible rush of motivation and energy, began to work on it literally 24/7, barely breaking for sleep and food. All he thought of was how to absorb the new material and get started on the new one. Mark's situation was quite different – for years he had been pondering over learning English and still hadn't dared to take the first step, considering it impossibly tedious and complicated. But when he realized that being able to speak English fluently would open up a lot of new opportunities for him, he decided to force himself to sit down and learn the language by all means and focus only on self-discipline.

Which one do you think will succeed and be able to reach his goal? We will be able to give the answer to this question a little later.

“What is a foreign language learning?” – is a question to which every second person will answer something like, "Grammar, vocabulary, listening and a little speaking." This is why for many the process of learning is a hard routine, which in the end does not bring any results. As a consequence, most begin to burn out and soon they finally give up. To avoid such consequences, it is necessary to adhere to clear rules that will help you to be charged with motivation from this kind of self-development, will lead you to the desired result and, of course, will give an answer to the main question of this article.

Firstly. you need to understand exactly why you need a new foreign language at this point in your life. Our brain is a very complex and multifunctional thing that likes order and always clearly prioritizes its work. Therefore, as long as you do not realize why you need this or that action - the brain will consider it a low priority task, making it very difficult for you to tune into a working mood, and the brain will try to give you “more important and priority”, in his opinion, things that you will always get distracted. So, your main task for now is to prove to yourself and, in consequence, to your brain that you really need this skill.

To do this you need to:

1. Set yourself deadlines.

In what time frame do you want to achieve the goal? And what progress do you want to have in a month? What then do you need to do every day to make it a reality? Be sure to get an answer from yourself to each of these questions.

2. Learn to dream concretely.

Avoid generalizing concepts that do not provide a complete picture. Both you and your brain can just get confused and instead of inspiration, you'll only get frustration and a bunch of negative emotions.

3. Make a checklist.

Each big goal should be divided into many small goals, because this is how you will pass your brain a clear algorithm of action, which subsequently will allow you every day to achieve more and more new results, which will soon acquire gigantic proportions. Think about whether you can cope with learning a language alone, or whether you need the help of a professional teacher? Establish all the conditions so that in the future every new morning you will know exactly what you need to do next.

4. Be realistic about what you can do.

You shouldn’t underestimate yourself, but also you shouldn’t set yourself goals that you definitely can’t achieve. Analyze your schedule, think about how much time you are really willing to work and do not get exhausted. According to your answer, think about your next steps, not forgetting to give enough time to rest.

An ideal example of a goal that will help you achieve results looks like this:

“I want to have a B2 level in Spanish that is new to me in a year. Having studied in detail and rearranged my schedule, I can now devote 2.5 hours a day to studying this language, after which I will have time for absorbing the material and doing my personal hobbies. I realize that if I can speak Spanish fluently, my life will change for the better and every effort I make will be worthwhile. Thanks to this, I will be able to get the job I've always dreamed of, to have a good salary that will be enough to cover all my needs and to move up the career ladder in an area that gives me pleasure. Of course, I understand that there will be many difficulties on my way, but thanks to the quality materials I have chosen and the support of my tutor, I will overcome every obstacle that will stand in my way to success and I will reach the end. Just go for it!”

All this time we’ve been discussing about algorithms, plans, goals, tasks, difficulties, and obstacles. But where in the midst of all this is the positivity and enjoyment of what is happening?

It's important to remember that achieving a goal is only 5%, and the other 95% is the path to it. The process should bring pleasure, not make you think that you want to finish and forget about this "routine” as soon as possible. Going back to John and Mark, at first glance it may seem that Mark, with his discipline, or John, with his enthusiasm, can definitely achieve results, but in fact, if each of them does not adjust his strategy, they will both fail.

“Motivation is the fuel for the fire, and discipline enables you to keep it burning,” – Jessica Alderson.

If the only thing that keeps you afloat is motivation, it will be followed by the worst kind of burnout, which will make you back down. Even though John is “on fire" with motivation – without discipline it will sooner or later fade away, because it is discipline and willpower helps you in fighting the obstacles in your path, unlike motivation, which often dissipates at the first difficulties. Thus, by working hard 24/7 John will be able to take 5 steps forward at once, but when fatigue, burnout, lack of sleep and the feeling of having taken a wrong turn get in his way, he will somehow give up, thereby taking 10 steps back. In Mark's case, through discipline, he will be able to take small steps each day, indirectly getting closer to his goal day by day. However, without the desire and the proper attitude to language learning, he will most likely not be able to keep all the information he learns in his head, because his brain will, again, consider it a low priority, which causes only negative emotions that are harmful to Mark himself. Accordingly, his brain will try to erase from memory as quickly as possible that which is detrimental to his performance.

Discipline is the oxygen that lets the fire – your motivation – burn. Remove one of them and the flame ceases to exist, leaving behind only ashes. Take new steps every day and get a lot of pleasure from it. Just remember, if time passes and you don't feel any change in your level despite your efforts, or if this plan brings you nothing but fatigue and frustration, it is a sign that your tactic is not working for you. In order to start moving forward, you need to find your own strategy, and then you'll feel the progress you've been waiting for.

I believe this article has been of interest to you and will help to get through this journey from the very beginning to the end.

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MULTIMEDIA TECHNOLOGIES IN EDUCATION

As practice shows, students quickly get tired of traditional English lessons, so multimedia technologies implemented into the learning process have a positive impact, as such learning has many advantages and features.

At the present stage of pedagogical science and practice development, the role of multimedia technologies in teaching is determined, first of all, by the expansion of ideas about the means of learning (Cherednichenko, 2010, p. 3).

With the development of information technologies and the advent of multimedia tools, information perception has changed, which has led to the transformation of public consciousness. In addition, multimedia learning tools have a separate impact on the formation and development of human mental structures, including thinking, because they combine information perceived by different senses.

Using multimedia technologies in the professional activity of an English teacher has the following advantages, as noted by V. Bilous, A. Smorzhevska and B. Korchevsky in their works: visualization of information, the ability to briefly present a large amount of information, paying attention to the most important points, preservation of a significant amount of information, the ability to choose the material according to age, level of English proficiency and individual perception of the learning material, to arouse interest in learning English (Bilous, 2013, p. 118).

Similar approaches are supported by foreign experts. For example, according to Masarath Jahan, the benefits of using multimedia are explained by the focus and attention of students on the essence of the speech and facilitates the understanding of the presentation (Masarath, 2019). In addition, students learn better when they understand the value and importance of the information presented in the classroom, according to Dr. Minu Podney, who emphasizes that in order to achieve the ultimate goal, it is necessary to create a supportive and interactive atmosphere (Masarath, 2019).

Multimedia technologies make it possible to integrate many types of information in a meaningful and harmonious way, to present information in various forms: images, including photographs and slides; voice recordings, sound effects and music; video, complex video effects; animation and simulation (Kuchai, 2014, p. 113).

V. Osadchy claims that graphics, audio, video, as means of multimedia technologies, significantly affect the learning of educational material. Besides, he substantiates the effectiveness of multimedia tools based on visual and auditory perception of the material: a person perceives and is able to process up to 1 thousand conditional units of information per minute during the learning process, and when connecting the organs of vision percieves up to 100 thousand such units (Osadchyi, 2014, p. 46).

Multimedia technologies provide the teacher with a lot of opportunities, among which the following should be highlighted: to demonstrate the material; to create the effect of one's own presence; to provide a tool for working out learning skills; to increase motivation of learning, to stimulate cognitive aspects of learning; to provide a high degree of independent work (Osadchyi, 2014, p. 49). Regarding the tools for learning skills development, simulators are meant, which are advisable to use at the stage of certain competencies development. Multimedia make it possible to form the competence of students' independent learning, gradually familiarizing with a certain resource and working with it.

When teaching a foreign language, using information technology, students have the opportunity to prepare multimedia presentations, view and listen to audio and video materials. At the same time, a teacher has the opportunity to use multimedia teaching materials and tools to model various problem situations, which will give students the chance to consolidate their communication skills in a foreign language (Rubai, 2015, p. 190). In addition, it is possible to control the learning pace by students themselves, to choose the complexity level of the educational material, to be creative in the process of mastering a foreign language (Rubai, 2015, p. 190).

Other advantages of modern information technologies are a significantly simplified process of preparation of both a teacher and a student for the lesson, possibility of applying a creative approach to learning and teaching, access to international communication and exchange of experience, as well as curricula, materials, etc., individual approach to each student, modern materials meeting the needs of each student, choosing individual pace of work, teamwork skills, various problem situations modeling, which will give students the opportunity to consolidate their knowledge and skills.

Thus, the effectiveness of multimedia allows to increase intensity and efficiency of the learning process; creates conditions for self-education and distance learning, hence allowing transition to continuous education; in combination with telecommunication technologies solves the problem of access to new sources of diverse content and forms of information.

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MANIFESTATIONS OF SEXISM IN ENGLISH PROVERBS

The place and role of women in society is one of the eternal questions (Hartsock, 1987; Hillard, 2018; McConnell, 2013). Since ancient times, a woman was believed to be inferior in status compared to a man, to have fewer opportunities for self-realization, to be capable of realizing herself only as a wife and mother, not a professional figure, until the 20th century made its adjustments. It was gender stereotypes that contributed to the fact that such an attitude towards women was rooted in the consciousness of society.

Proverbs reflect social customs and psychological perceptions of people, they can reflect the creativity, wisdom and spirit of a nation (Wickberg, 1998).

There are many stereotypes and assumptions about men and women, some of which are rooted and deeply embedded in culture, but some of which have emerged more recently. These conventional and simplistic ideas can be reflected in proverbs, sayings and parables. They express shared experiences and widespread opinions. They may be specific to a particular culture or be known in different cultures, or be borrowed from other language communities. Prominent paremiologists define a proverb as a short, well-known sentence of a people containing wisdom, truth, morality, traditional views in a metaphorical, fixed and memorable form and that is passed down from generation to generation (Palmer, 2003; Zheng Xin, 2018).

Feminist criticism uses different approaches to examine and expose unfair and biased representations of women.

One is to demonstrate that they are no longer relevant or valid due to significant social change. Other feminist approaches try to examine what stereotypical behavior means in light of the political and socio-cultural context.

The following analysis of English proverbs about men and women aims at exploring how the sexes are perceived and described in these short expressions of common knowledge and wisdom, and demonstrating that a significant number of these proverbs portray women in a very unfair, demeaning and offensive way, which is a consequence of a male-dominated culture.

Proverbs about female character are very common in the English language. They can be both positive and negative, and unfortunately, those that criticize women are quoted much more often.

Women are culturally perceived as a weaker sex:

– A woman is the weaker vessel (Ray, 1893).

– Frailty, thy name is woman (Ray, 1893).

In the second example, the abstract noun "frailty" is personified, and the female attribute is given more importance than the woman herself.

A woman is expected to be gentle, delicate, shy and not very smart:

– *Handle with care women and glass* (Ray, 1893).

– *Women are wacky, women are vain: they'd rather be pretty than have a good brain* (Ray, 1893).

Women pretend to know less to avoid conflicts with men:

- *A man thinks he knows but the woman knows better* (Ray, 1893).

They change very quickly:

- *A woman is a weathercock* (Ray, 1893).

- *Women are always in extremes* (Ray, 1893).

They cry easily:

- *Men must work and women must weep* (Ray, 1893).

They talk and gossip excessively:

- *A woman's tongue is the last thing about her that dies* (Ray, 1893).
- *Tell a woman and you tell the world* (Ray, 1893).

It is worth noting that a large number of proverbs criticize women's talkativeness, and this is probably because a witty remark can be a very effective weapon, which most men fear.

Women are also accused of being unable to keep secrets:

- *The only secret that a woman can keep is that of her age* (Ray, 1893).

They are complex, intriguing, often squabbles-prone and belligerent. Women get angry easily, and when they are mistreated, their anger is irresistible. They are vengeful and unforgiving:

- *There was never a conflict without a woman* (Ray, 1893).
- *Women are like wasps in their anger* (Ray, 1893).
- *Hell has no fury like a woman scorned* (Ray, 1893).
- *Women and elephants never forget* (Ray, 1893).

All women are imperious, stubborn, inflexible, always want their will to be brought to life:

- *Women would be more charming if one could fall into their arms without falling into their hands* (Ray, 1893).
- *Man has his will, but woman has her way* (Ray, 1893).

Thus, proverbs reflect common and popular knowledge and are the result of shared beliefs, assumptions and experiences. As language changes, proverbs change over time as well, and new ones emerge, but it seems to happen more slowly.

Cultural behavior, attitudes and stereotypes are very difficult to change. Some stereotypes expressed in proverbs are completely unfounded, others contain some truth. However, both can be better understood and explained if they are placed in a socio-cultural context.

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DISTANCE LEARNING – AN IMPOSED NECESSITY

The pandemic caused by Covid-19 has messed up many traditional activities in our society, imposing cardinal changes in various fields, including education. The work of educational institutions was suspended for a relatively long term. Seeking a way out of this situation, the authorities and pedagogical teams tried to use the possibilities offered by Online Programs, an absolutely new process for Moldova. What did teachers and students succeed in this process and what did not, from what causes and what would be the prospects of this form of Education?

The educational community demonstrated a prompt reaction and ability to adapt on the go to new conditions, dictated by an objective factor – the pandemic crisis, the proportions of which, it seems, no one was prepared to. Although for the Republic of Moldova the online education was not very familiar (in the sense that, occasionally, some teachers already practiced elements of this form of learning), the new conditions determined each of us to comply and proceed to the new way of achieving the educational process. In record time, methodologies and mechanisms have been developed for their application regarding distance learning, online (https://mecc.gov.md). For this purpose, online training sessions were conducted for local trainers (among teachers), who subsequently trained teachers with less experience in order to achieve the educational objectives, so that the students complete the educational program well.

Strange as it may seem, but the pandemic crisis contributed to the emergence of the opportunity for a good part of the teachers to form new, technological skills, to carry out the educational process, this being a great advantage. In our opinion, distance learning is a reality and it will not end with the termination of the pandemic crisis.

On the other hand, the crisis has shown some key gaps in state programs on teacher training courses. These programs did not focus on training teachers ' digital skills at such an advanced level that there was no need now for their mass digital literacy, a process that took time and the effectiveness of which we are yet to find out.

A disadvantage (at least, in the first days of applying this form of learning) was the lack of access of some teachers to Information Technologies, which subsequently improved substantially. Obviously, living communication in the classroom, Tet-a-Tet, cannot compare with a distance communication, but it depends on the teacher, how he manages to convey the message, to involve not only the active students, but also the most modest ones, in an active and motivating learning process.

(Cristea S., 2002). At least, programs, educational platforms offer these possibilities of using various methods, so that learning is an interesting and exciting process.

The modern society in which we live is in a permanent and accelerated change.

That of changing the nature of jobs. Modern man lives in a fluid environment with an immense speed of novelty, which often comes to be perceived as hostile. Until recently a person had only one job throughout his life, today jobs change on average every 5 years with drastic changes. Therefore, support must come from education, which in turn must adapt.

Only 50 years ago the education received in school years could be enough for the rest of his life, today the situation has changed. Both society and the modern individual must move from Oriental Education on the level towards Continuing Education, education must prepare the individual for society, and these are the requirements of modern society. It can be regarded as a society of uninterrupted modification of knowledge.

Mistakes of approach in modern education can lead to consequences that are difficult to estimate, even for a short time but that is precisely the challenge.

Educational institutions should develop methods to promote highly skilled students: capacity for cooperation and dialogue, flexibility to maintain balance, prepare the individual for a new lifestyle and lifelong learning. In the contribution of education come new information technologies. It is in such conditions that we recall that notion, somewhat vague until a certain moment-distance learning. The United States Distance Learning Association, (www.usdla.org) defines the notion of distance learning as " obtaining knowledge and skills through distributed information and instruction, applying various technologies and other forms of distance learning. "Let's try to come up with more details on this chapter.

Distance learning seeks to give people the chance to learn at the time, place and pace that best meets their personal requirements by trying to give them the chance of a better adaptation to the new society. With all these technologies, it does not mean that you have to abandon the methods of traditional education.

Distance learning seems to be the most appropriate answer for preparing adults.

Also, more and more national and international research programs in practical education are highlighted (Sâmihăian F, 2014). Technologies can eliminate a large part of the time constraints, restricted access to information due to distances, accommodation costs, transportation, the possibility of adapting personal education programs, the possibility of quickly accommodating changes and new knowledge in various fields. Teachers can focus on their fields of activity, develop educational materials and collaborate with each other. It is obvious that these new concepts in education cannot replace traditional ones.

Advantages of distance learning:

- The training is open to any person, regardless of the level of training, promotes creativity, facilitates local training, without displacements, allows the choice of desired themes, supports the feeling of freedom and self-confidence.
- Rapid distribution of teaching materials: Teachers or administrators can very quickly, anytime, anywhere and anyone with the information they want. So, there is no need to synchronize people to physically meet; no one will lose anything because the information stays online.
- Content can be easily deleted, corrected or updated: If the distributor realizes that he has sent the wrong information or may want to update it, he can do so anywhere and anytime. Also, any document can be edited and reissued, so correction no longer causes difficulties.

Disadvantages of distance learning:

- It does not give the student the opportunity to socialize, integrate into the collective and create emotional bonds.
- Boundary situations: we call borderline situations cases where a person is in a certain context in which he cannot have access to the internet or cannot afford it. For this reason, it may happen that he loses some information that was useful to

him at that time, but that he cannot access on the spot. These crisis situations really cannot be controlled.

Distance learning is a learning process that is based on different multimedia resources and that allows one or more people to form by studying at their own computer. The learner being able to acquire the knowledge presented at his own pace (https://www.link-academy.com).

One of the essential conclusions from the work experience prior to the quarantine period, i.e. effective teaching practices, rather face-to-face interactions, we believe must also be preserved in the online environment. A professional teacher always remains good, despite the working conditions, interactive techniques and methods of teaching–evaluation. (Cristea S.,2019) The transfer of creativity from the real classroom activity to the technologically mediated one is visible, especially in the case of responsible teachers and teachers who care. This does not mean that those who manifest themselves soundly in the digital environment are the only ones who assume the continuation of the learning process. There are many other forms of quality assurance in teaching and in promoting didactic interactions, especially in contexts where you remain face to face with the problem you have to solve, with the knowledge you have, with the past experience, with the contingent of students, with the real possibilities available to all those directly involved in the study process.

CONCLUSION: Against the background of the coronavirus pandemic, which forced most states to close their schools, thus interrupting the educational process, teachers and the rest of the didactical stuff of R. Moldova, like those from other countries, faced a great dilemma, having to adapt quickly to the conditions of distance learning, in order to send an important message to everyone: continuous learning beyond school, with the help of online tools accessible to anyone and, above all, with a lot of determination, we can make progress together, but most importantly, we can encourage students to learn and work independently.

Distance learning cannot be achieved without a modern and efficient technical material base, but, above all, without sufficient training of teachers in terms of mastering communication information technologies, but also instrumentalization of the entire process (Szekely E.-M., 2009). And after the coronavirus pandemic, the key issue is not when schools will open, but how education will continue to look in conditions of the need to maintain social distancing.

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THE USE OF GAMES IN FOREIGN LANGUAGES LEARNING IN HIGHER EDUCATIONAL INSTITUTIONS

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Mastering a foreign language at a university involves the formation of a number of competencies in students. In particular, graduates should be able to communicate in oral and written forms in a foreign language and solve problems of interpersonal and intercultural interaction. Therefore, students must have certain knowledge (for example, knowledge of language means) and skills (use language communication formulas, formulating their point of view, etc.), as well as be able to correlate language means with specific situations of intercultural language communication.

Solving this complex, “global” task occurs throughout the entire period of learning a foreign language in higher education and requires the use of rational and effective approaches and technologies, forms and methods of learning. In this context, it is customary to talk about the use of new information and communication technologies, active learning methods, and a differentiated approach.

A method that allows: a) to motivate students to study the subject; b) promotes the development of language and speech competence; c) contributes to faster and stronger assimilation of the material, there is a game.

For the games that will be discussed in our work, we offer the name "word games" - they are all related to a word, its spelling, meaning, connection with other words.

Word games allow students to:

– to expand vocabulary by getting to know new lexical items;

– learn more familiar lexical units;

– practice spelling words;

– to activate speech activity;

– gets acquainted with the conjugation of lexical units, stable expressions, phraseological units.

Word games include the following:

1. Anagrams
2. Crosswords
3. Searching for words among letter chaos (Wordsearch)
4. “Gallows” (Hangman)
5. “Balda” (a word game in which words must be formed using letters that are added in a certain way to the square playing field).
6. “Words” (assembling shorter words from one long one, most often for a while).
7. “Unscramble” (assembling a word from an existing set of letters).
8. Wordchain (building a list of words by replacing one letter in each subsequent word, possibly with reference to the definition).
9. Constructor (assembling words with morphemes presented on separate cards).
10. “One letter - many words” (students name the words they know by a certain letter of the alphabet).
11. “The last letter” (name the word that begins with the last letter of the previous one; it is worth noting that in English, taking into account the unpronounceable -e at the end of the word, it may be suggested to start the word with the last sound of the previous one).
12. “Missing letters” (guess the word only by vowels/consonants).
13. Hot Chair (guess the word by its definition, synonyms, antonyms, etc.) and others.

Some of the games involve group work, team competition (for example, Hot Chair, Constructor, etc.), some - work in pairs; games such as “Gallows”, “Anagrams”, “Wordchain” should be played face-to-face, presenting the material on the board.

As shown by the survey of students of the 1st year of Beketov National University of Municipal Economy in Kharkiv, the specialty “Philology”, most students like to play similar games; 100% of students solved crosswords in the process of learning English, a much smaller number of students are familiar with anagrams and Wordchain. In general, students consider the use of games in practical English language classes to be an interesting, effective method that allows them to remember the material better.

Undoubtedly, word play in practical English language classes at a university should not be an end in itself, although in some cases it can serve as a kind of “release” after hard work.

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DISCRIMINATION AGAINST WOMEN IN ENGLISH PAROEMIAS

The modern world cannot be imagined without humor. Humor exist in different manifestations and forms. Humor can be good-natured, rude, harsh, sad, touching, witty, or sophisticated (Ptushka, 2009; Colston, 2001; Raskin, 1996). It should be considered as an integral part of the culture of each individual nation, as it expresses the peculiarities of national color, history and mentality.

The problem of women discrimination and oppression existed hundreds of years ago and still exists (Lakoff, 1975; MacKinnon 1979; Tannen, 1991). The problem of women oppression, which is inherent in various societies, is expressed in various aspects of human life, including frequent manifestation through humor. Sometimes, the most innocent joke can have a huge negative impact on the psyche of the person to whom it was addressed.

One of the overarching problems of the democratic society development is the problem of reconciliation of men and women professional and family life, providing them with the opportunity to exercise their equal rights. Therefore, the embodiment of gender equality in social relations of every developed democratic state is of great importance.

The female hypostasis in Oriental philosophy is associated with “yin”, which means dark, earthly, impermanent. According to the biblical tradition, it was a woman who committed the first sin. In scientific studies it has been repeatedly pointed out that women in society occupied a secondary and special position (MacKinnon, 1979).

Gender inequality can be expressed in different forms and affect both men and women. However, women most often suffer from such discrimination. Since various literary genres are quite widespread around the world and through literature a lot of knowledge, experience, thoughts and experiences are transmitted, which can have both positive and negative directions, we will consider some literary genres through which discrimination against women in the United States and Great Britain is expressed.

Proverbs function as a means of storing and transmitting folk wisdom and experience, crystallization of the national worldview; they show an organic connection with the specifics of the ethno-cultural worldview of a particular people. Proverbs and sayings not only simply describe situations or give their solutions, but also express the opinion of peoples, their observations and experience, and are an expression of the national mentality.

Let us trace the discrimination of women on the example of proverbs, where proverbs contain the experience of generations and are a stronghold of knowledge and wisdom, but, as practice shows, women's discrimination also takes place in this type of literary genre, for example:

– *"A man of straw is worth of a woman of gold"* (Johnson, 2000).

According to this proverb, a man and a woman are compared to inanimate objects, a man is compared to straw and a woman to gold. And a woman of gold is not worth a man of gold, and only a man made of straw can equal her. This proverb devalues a woman and all her achievements. It says that no matter how smart, hardworking, educated a woman is, she will not be higher than any man. That is, under any circumstances, a man will be better than a woman, and therefore the latter will not even be able to match the characteristics that are inherent in a man.

– *"If the husband be not at home, there is nobody"* (Johnson, 2000).

In accordance with this proverb, not only all women's achievements are devalued, but also a woman herself is not perceived by society as a separate person and even her presence is ignored.

Discrimination is reflected so strongly that it indicates not only the discrepancy between women and men, but also impossibility of such a comparison. A woman without a man is unable to make decisions or cannot even have any opinion, etc. In fact, a woman "does not exist" without a man.

– *"A woman's advice is never to seek"* (Johnson, 2000).

That is, a woman cannot give good advice and should not be listened to at all. Women's wisdom, their knowledge and ability to help and suggest in a complex situation are not perceived. Women do not have enough competencies and skills, abilities to give advice.

Thus, women's words and pieces of advice are taken by men as something unimportant and unnecessary, because they do not carry any meaning or benefit.

– *"It is harder to marry a daughter well than to bring her up well"* (Johnson, 2000).

Marrying a daughter was the most difficult task for her parents, because women were not perceived as equal to men, their opinion was not taken into account, they were a burden for their own family. Parents had to make a lot of efforts to find them a husband.

Therefore, women were not valued and always had low priority. However, such proverbs are rather outdated. Modern society has moved away from the past traditions, according to which men were chosen by parents for their daughters, thus allegedly transferring all the burden to a new husband.

– *"When an ass climbs a ladder, we may find wisdom in women"* (Johnson, 2000).

Another proverb is related to humiliation of women's wisdom, education and personalies themselves. Women's wisdom will be taken into account "when hell freezes over", that is, it is unlikely to ever happen or only in exceptional cases. Thus, to hear wise statements from women's mouths is equated to something unreal.

Consequently, women are discriminated against not depending on their qualities or character traits, but only on their social status in relation to men.

After analyzing a number of English proverbs referring to women, the following conclusions can be drawn: in the English-speaking culture there is a large quantity of proverbs discriminating against women and degrading their dignity. The majority is aimed at humiliating women's mental abilities; women are portrayed as uneducated housewives who should only serve more intelligent men and obey them implicitly.

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MEDIA TOOLS USAGE AT FOREIGN LANGUAGE CLASSES

Nowadays a modern person cannot do without information which exists in various forms and has many means and sources of its obtaining. The main type of getting quality and reliable information is education. Education today is perhaps the most important aspect of life that shapes the future society, creates each person as a personality, forms the mentality, gives an idea of what our world and our life is made of. Therefore, there are numerous ways to simplify learning, to improve and explain it in more detail, as well as to accelerate the educational process and to stimulate interest, giving more motivation to learners.

Learning a foreign language requires the most accurate understanding of not only the language itself, but also the mentality of its native speakers. Thus, one of the still popular variations of such practice today is the use of media tools.

Multimedia learning tools are resources used for the educational process, based on multimedia and usually supplemented by age- and subject-appropriate methodological developments and training courses. Therefore, scientists are considering many different technologies, feasibility and effectiveness of their use for rapid and high-quality organization of the presentation process and new material, as well as monitoring the level of its formation at different stages (Johnson, 2013).

Since there are many different types of media tools, there exist different ways to apply them in practice. Each type of media has its own advantages in enhancing and facilitating the learning process.

Among the advantages of using media tools in the English classroom are the following:

1. The Internet. It helps to improve different types of foreign language activities - writing, reading, listening and speaking. Students have the opportunity to get acquainted with the peculiarities of linguistic behavior, culture and traditions of different peoples in the context of communication. The Internet also contributes to the consolidation of knowledge, skills and abilities acquired in the classroom; it can be used as a means of control through online testing, allows students to communicate with the teacher via e-mail, to have access to information resources, reference systems in the preparation of homework for foreign language classes, projects or tests (Taraba, 2018).

2. Cinema, television, radio. Watching videos, students learn more about the traditions and culture of the countries the language of which is being studied. Watching video fragments and listening to audio materials help to practice listening comprehension and reproduce information heard in the learning process.

3. Newspapers, magazines. When reading newspapers or magazines in a foreign language, students' vocabulary is replenished with the vocabulary of modern English.

Also, students learn to independently discuss current issues, which contributes to the formation of foreign language skills and helps to form and express thoughts in a foreign language.

Considering these examples, we can conclude that using additional materials for learning only broadens the horizons and consolidates the knowledge of the material being studied.

It is believed that tasks involving media tools contribute to students' independence development, their ability to impartially analyze information, synthesize and summarize the information received, formation of students' creative, communicative abilities and their critical thinking. The appropriate use of relevant media tools in teaching a foreign language contributes to quick and easy assimilation of educational material, develops students' short- and long-term memory, sets them up for active work and motivates interest in the subject. This leads to an increase in the efficiency of the learning process as a whole (Shumayeva, 2000).

Thus, watching video and listening to audio materials, students have the opportunity to hear real live and correct pronunciation from native speakers of the language being studied. Videos provide an opportunity to see with their own eyes what is discussed in the classroom. Watching videos, students learn the material on linguistic and cultural studies, namely spread knowledge about the traditions and culture of the countries studied and better understand the material provided in the classroom. By watching video fragments and listening to audio materials, students train to percieve the language aurally (Shumayeva, 2000).

During media lessons, a teacher and students also work indirectly with hypertexts. Hypertexts allow linking text, audio, pictures, drawings and other forms of information into a whole. They can be accessed using an indexing system that focuses on key ideas in the text (Begenard, 2005).

Lessons with media tools usage have certain advantages over traditional teaching:

– they contribute to the realization of educational, developmental and upbringing functions of learning;

– make it possible to process a larger amount of material;

– provide an opportunity to perform more interesting and diverse exercises and tasks;

– visualize the learning process, taking into taking into account the individual characteristics of students, their perception and processing of information;

– affect the emotional sphere of pupils, form a positive attitude and increase motivation to learn (Bezhenar, 2005).

It has already been proved that the optimal gradual use of media tools in the classroom helps to activate and develop students' mental abilities, promotes active acquisition of knowledge, skills and abilities, teaches self-education and cultural communication. The introduction of information technology in the educational process, according to experts, increases the effectiveness of learning by 30-40% (Bezhenar, 2005).

Thus, media tools application in the learning process increases the efficiency of students and their level of information memorization. Students receive more diverse and interesting information with the help of which they can actively work and develop their skills and broaden their horizons. This affects students' interest, their activity in the class, as well as their final grades.

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ARGUMENTATION AS A SPEECH INFLUENCE TOOL IN ENGLISH INTERPERSONAL COMMUNICATION

Communication is a complex, multi-level process of information transfer and is defined as an important component of human's life. Being a fundamental element of human interaction, the communication process has always attracted the attention of scientists. It appears as an act of communication between two or more individuals and is based on mutual understanding.

Individuals, being participants of the interaction process, are inclined to persuade the interlocutor and bring to the opponent's attention the point of view while expressing a certain idea with the help of linguistic (verbal) and extralinguistic (non-verbal) means (Popik, 2018, p. 159-165).

The relevance of the study is determined by the need to study the linguistic influence specifics, as well as the implementation of linguistic influence by such methods as rational and emotional argumentation.

The object of the study is communicative acts containing linguistic influence elements of argumentation. The subject of the study is the means of linguistic influence implementation within informal communicative acts.

The purpose of the study is to explore and analyze the specifics of argumentation strategy implementation (rational and emotional). The research material consists of 80 communicative acts, extracted from 3 TV shows.

The concept of "interpersonal communication" is studied by a range of disciplines such as psychology, sociology, medicine as well as linguistics. According to linguistic studies interpersonal communication is the process of information exchange between two or more interacting individuals.

The components of interaction process are the message itself (the actual information), communicants (addresser and addressee), communicative act and communicative move. A communicative act consists of the communicative situation including the addresser's speech act and the addressee's interpretation act, and all the contextual parameters as well as time and place where the situation takes place. A communicative move, on its turn, is the communicative act component which is the communicant's replica referred to the communicative goal (Kholod, 2011, p. 142-143).

Speech influence, as a unilateral influence on one person or a group of people, is considered successful only in case of the achievement of the communicative goal, which is the intention of the subject to convince the object of communication. A communicative goal can be achieved by the means of certain strategies used in the context of communicative act (Kozlova, 2014, p. 198).

Argumentation is the sequence of providing evidence and reality facts in order to prove a certain point of view to the recipient. The strategy of argumentation within the speech influence process can be divided into two categories – rational argumentation and emotional argumentation.

Rational argumentation appeals to the rationality, logic and evidence used by the addressee of the message in the process of communication. The essence of the emotional argumentation is based on the use of emotions as the main tool of persuasion, as well as the appeal to the interlocutor feelings.

Research shows that the use of rational argumentation goes through certain stages: assertion, evidence/data and counterarguments (Toulmin, 2003, p. 87-131). The success of such argumentation depends on how clearly and logically the statement is formulated, namely the first thesis of the addressee's message.

The following communicative act provides an example of the use of rational argumentation in interpersonal communicative interaction.

– *Amy: Um... Well... I'm getting married.*

– *Rachel: What? Oh my God! To who?*

– *Amy: This guy! He has a killer apartment. And it's on Fifth. And the elevator opens up right into the living room.*

– *Rachel: Sweety, I gotta tell ya... it sounds a little bit like you like the apartment more than you like... Honey, you know, I once also almost married somebody that I didn't love. Do you remember Barry?*

– *Amy: Humpf, remember him?*

– *Rachel: Listen, not marrying Barry was the best decision that I ever, ever made. Honey, you deserve true love. Your soulmate is out there, somewhere. Someone that is your age, that is smart, that is fun and that you care about!*

– *Amy: (thinks about it) You're right, you're right! I'm gonna do it!* (Friends, Season 10, Episode 5)

The communicative act consists of 6 communicative moves. Rachel tries to convince her sister (Amy) that it is wrong to marry a rich man because true love is more important. Rachel makes a clear statement in this regard: "*it sounds a little bit like you like the apartment more than you like*". Having made a logical and true statement, the woman provides arguments of her own real experience and uses powerful lexemes, listing the best man's qualities as regards her sister: "*Someone that is your age, that is smart, that is fun and that you care about*!". In this case, the use of the strategy of rational argumentation has led to a positive conclusion successful implementation of speech influence, that is the result of the appeal to rationality, the correct formulation of the statement and the use of appropriate evidence facts concerning the communicative situation.

The concept of emotional argumentation is emotional contagion as a phenomenon of reflexive transfer of behavior, feelings and emotions of one person to another (Nickerso, 2021).

Such argumentation as a tool of linguistic influence is based on the feelings and experiences of communicants, the rational component, on its turn, does not play a significant role or is completely absent. Communicants omit reality facts and rely entirely on emotions.

Emotional influence is classified into several categories: encouragement, consolation, complaint, joke, mockery, boasting, insult, threat, expression of emotions (for example, regret, joy, surprise) (Stasiuk, 2010, p. 86). The analysis of 26 communicative acts (CA) that contain emotional argumentation identified the four most productive emotions of speech influence: fear 38% (10 CA), pride 27% (7 CA), regret 19% (5 CA) and shame 16% (4 CA).

Thus, communication is an integral part of human interaction and its implementation provides the desire to implement speech influence in order to achieve the interlocutors' communicative goal. Influence can be realized through rational and emotional argumentation, the main components of which are linguistic (verbal) and extralinguistic (non-verbal) means of communication, as well as the cultural and social context of the communicative act. Rational argumentation appeals to the rational facts and emotional argumentation is based on emotions as the main tool of persuasion, but both means can be effective in achieving the communicative goal of speech influence. The prospects of the study are further comprehensive study and analysis of speech influence by the means of suggestion in the context of informal communication.

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SEXIST HUMOR IN THE TEXTS OF ENGLISH JOKES

Humor is an integral category of human communication, which can be traced back to the earliest written documents, newspapers and books, and, of course, to folklore, namely English jokes (Ptushka, 2020; Colston, 2001; Raskin, 1985). And it is quite obvious that as a phenomenon of human culture, it existed before the advent of writing. Humor naturally originates from the conditions of people's cohabitation, so no one could do without using it in their everyday lives. Humor is a way of communication, self-expression, it preserves the peoples culture and passes it on to generations.

The anecdote belongs to small forms of folklore, in order to analyze the problem of discrimination against women in the texts of the English anecdotes, it is necessary to analyze the term "anecdote" first.

This term comes from the Greek ἀνέκδοτον (anecdote), and giving a literal translation, anecdote means "an unpublished one". In French *the anecdote* is a short story about an interesting incident. The anecdote is a folklore genre through which a short story or a story about a funny incident with an unexpected comedic outcome is told. It also has satirical or humorous features (Raskin, 1985).

Quite often women suffer from stereotypes imposed by society. Such stereotypes are also reflected in anecdotes, for example, when blondes are attributed insufficient erudition, or when a woman's place is said to be in the kitchen.

In linguistics, a stereotype is a judgment that in a simplified and generalized form, with emotional coloring, attributes certain properties to a definite class of people or, conversely, rejects these properties.

Stereotypes are considered to be special forms of information processing which facilitate human orientation in the world. The features present in stereotypes are used to assess the belonging of objects to a particular class and attribute certain characteristics to them (Shchotka, 2019).

Sexist humor is humor which degrades, oppresses or objectifies a person according to their gender. Such humor is a particular form of sex discrimination because it trivializes a discriminatory message in the context of harmless entertainment (Colston, 2001). Such humor itself is a subtle expression of common stereotypes and hostile attitudes towards women.

Let us analyze the problem of discrimination against women in the texts of English jokes based on the following examples.

1. Q: Is Google male or female?

A: Female, because it doesn't let you finish a sentence before making a suggestion (Claro, 1996).

This joke, using the comparative effect, represents women as impatient and those who always interrupt the conversation and bother, do not allow men to express their thoughts or feelings. When deciding which gender *Google* belongs to, even without reflection, the answer is female, claiming that women are like *Google*, they will always make their suggestions before the interlocutor's finishes their sentence.

2. *"Women need to cry. And they won't do it alone unless they know you can hear them"* (Claro, 1996).

This joke represents the manipulation of women over men. A woman will cry only when someone hears her, thus emphasizing that women cry only for a certain result from a man. Women's tears are not perceived as a sign of emotionality or in some cases weakness, but as a way of controlling men. Women's tears should not be perceived as their cunning or insidious plan, some women relieve tension under stress, some overcome unpleasant events in this way.

3. “*A young woman was taking golf lessons and had just started playing her first round of golf when she suffered a bee sting. Her pain was so intense that she decided to return to the clubhouse for medical assistance. The golf pro saw her heading back and said,*

- *“You are back early, what’s wrong?”*
- *“I was stung by a bee!” she said.*
- *“Where?” he asked.*
- *“Between the first and second hole.” she replied.*

He nodded and said,

– *“Your stance is far too wide”* (Claro, 1996).

In the example above women's ignorance, lack of understanding of the situation and inability to analyze issues are mocked. In this joke, when a woman was stung by a bee while playing golf, when asked by the doctor what part of her body was stung by the bee, the woman answers that between the first and second holes, that is, she describes the place where the incident occurred, instead of indicating the part of the body. This anecdote is represented in the form of a dialogue between a man and a woman, in which the woman is attributed the qualities of a stupid and narrow-minded person, and in which she cannot even answer a simple question posed by a man.

Thus, it can be concluded that numerous jokes have stereotypical features. The jokes use certain characteristics of women and peculiarities of their characters. In English jokes the humorous effect is often conveyed through their exaggeration focusing on certain female qualities. Also, irony, absurdity, paradox, comparison are often used in jokes.

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REPRESENTATION OF THE CONCEPTS "TIME" AND "LIFE" IN ENGLISH DISCOURSE

Proverbs are phraseological units with sentence structure which have in their meaning the idea of comprehensiveness, illocutionary semantics of recommendation or advice (instruction) and are characterized by relative discursive independence. In general, proverbs are a code of moral rules and assessments of the certain society, aimed at correcting the views and behavior of society members (Paziak, 1984).

There is a widespread belief in society that proverbs play an important role in language learning as part of acquiring cultural knowledge, metaphorical understanding and communicative competence (Dubenko, 2004). Proverbs are part of every language as well as every culture. They are used to spread knowledge, wisdom and truth about life from ancient times to the present. Proverbs are considered an important part of children's education because they indicate moral values and encourage good behavior. They belong to the traditional genres of oral folk art, and the wisdom of proverbs has always been a guide for people around the world in their social interaction. Proverbs are concise, easy to remember and useful in any life situation due to the fact that their content reflects everyday life experience.

Proverbs which reflect the understanding of English-speaking peoples about the concepts of "time" and "life" by men and women are among the most important in the life of every person. These concepts are combined in one section, because there are often proverbs in which one concept is expressed through another, or the thoughts they reflect have synonymous meanings, such as:

1. *Time and thinking tame the strongest grief* (Speake, 2007).
2. *Time is a great healer* (Speake, 2007).
3. *Time works wonders* (Speake, 2007).

The presented group of proverbs reflects the folk experience that over time the pain of grief subsides, difficult situations do not seem so bad, disappointment, sadness and other negative feelings are not felt as acutely as at the time of a difficult, traumatic event.

1. *Time and tide wait for no man* (Speake, 2007).
2. *Time flies* (Speake, 2007).

Proverbs four and five reflect the idea that time is fleeting and no one can slow it down or stop it. Therefore, it is better not to postpone things, time will pass and another opportunity may never come again.

1. *Time is money* (Speake, 2007).

Here time is compared with money, that is, time is as a valuable resource as money.

2. *Lost time is never found again* (Speake, 2007).

3. *One cannot put back the clock* (Speake, 2007).

These proverbs describe another quality of time - its irreversibility and urge not to waste time in vain, because it is impossible to turn the clock back.

4. *There is no time like the present* (Speake, 2007).

This example represents the idea that as long as a person lives in the past or the future, he wastes time in the present, but one can act here and now, it is impossible to change what has already happened as well as do something in the future.

5. *Art is long, life is short* (Speake, 2007).

There are two points of view on the interpretation of this proverb: on the one hand, life is not enough to master art; on the other hand, works of art outlive their creators much longer.

6. *Life is but a span* (Speake, 2007).

Proverb eleven shows that life is compared not just to time, but to a moment, as a moment is fleeting.

7. *So much to do so little done* (Speake, 2007).

In this proverb we see another version of the idea of irreversibility and fluidity of time and life. You can't waste time, you have to do a lot in life.

To sum up, life is often perceived as a period of time given to each person. Also, there are options when life is a certain number of things which a person should have time to do.

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ECONOMIC SCIENCES

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MANAGEMENT OF DUAL EDUCATION AND MARTIAL LAW: PROBLEMS AND SOLUTIONS

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Dual education during martial law is a new challenge in the educational process. This form of education gives students the opportunity to help their country in the fight against an external aggressor: some can devote themselves to volunteering, some can work in institutions and organizations, thereby supporting the country's economy and obtaining certain qualifications. That is, in this way, students can work during their studies and gain practical skills, and enterprises, in turn, prepare new young qualified personnel for themselves.

So, the main advantages of this form of education are:

- for the student – an opportunity under the direction of a mentor at the enterprise to gain knowledge about the specifics of the company’s work, which further influences his decision of a professional career; the ability to perform work based on real data using the novel tools of production; rotation across the enterprise makes it possible to get acquainted with the work of various workshops and departments for further selection of a workplace; receiving a salary while studying; demand and competitiveness in the labor market [3];
- for the institution of professional pre-higher education – the opportunity to make corrections in training and educational programs based on information about the novel technologies, which the educational institution receives through cooperation with the enterprise; increasing the professional level of pedagogical and scientific-pedagogical staff; the prestige of the image of the educational institution and attracting the attention of more of applicants;

- for the enterprise – training of personnel that meets the company's requirements and realities; saving time for training and adaptation of a young employee; the opportunity to get talented students to prepare them for work at their production; obtaining an additional working resource for a lower financial reward; solving the problem of finding qualified personnel.

But along with the advantages of this form of education, there are also problems: insufficient understanding of the concept and features of the organization of the educational process according to the dual form of education (DFE) by institutions of professional pre-higher education (PPHE) and enterprises [3]; uncertainty regarding the student's enrollment in a position according to his qualification level, since he does not yet have it; low motivation and disinterest of teachers in this form of education; reluctance of the enterprise 's employees to be students' mentors, since students may compete for a job in the future; enterprises have fears that the applicant will not come to work for them in production after obtaining a certain educational level, but will go to work for competitors; during martial law, some employers refuse to cooperate with educational institutions, because they are not sure that they will be able to provide young applicants with jobs.

Thus, after analyzing the advantages and main problems of the DFE during the martial law, I note that the management of the dual form of education in the PPHE should include: organizing a high-quality procedure for selecting candidates for such education; development of competency criteria that a candidate should have; improving the quality of career guidance training for young people; improvement of the corporate culture of the enterprise; appointment of coordinators responsible for communication between the enterprise and the educational institution on the issues of the dual form of education; development of a procedure and criteria for selecting mentors in the workplace, taking into account the specifics of training at different levels of education; development of an institution to encourage mentors and young workers; to introduce the rotation of employees as a mandatory condition at enterprises of medium and large businesses; promotion of internship at the production of pedagogical and scientific-pedagogical staff of the institution of professional pre-higher education; mandatory conclusion of tripartite agreements; thorough preparation of the enterprise for the DFE, since under such conditions it also acts as a second training base for young applicants for education; monitoring and analysis of the reasons for refusals of applicants to continue their education, and in the future the opportunity to work in the company; development of a procedure for monitoring the quality of the organization of training in the workplace within the framework of the DFE.

So, as we can see, although the war brought us many new trials, there is still an opportunity to develop the institution of a dual form of education for the bright future for our country.

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INFORMATION SYSTEMS IN MARKETING ACTIVITIES

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Informatization of society has significantly changed the role of information in the economy and business. In the modern world economy, information has become a key concept, and the information sector of the economy is the most dynamic and profitable.

Successful business conduct and effective operation of the enterprise on the market are not possible without systematic control and analysis of the internal and external environment. The need to provide complete, reliable, up-to-date and relevant information to decision-makers is due to the ever-changing conditions of the micro- and macro-environment at various levels: consumer segments, market niches, regional markets, partnerships and operator associations. Under modern conditions, marketing information acquires a huge and irreplaceable value, which is constantly growing.

Marketing activity becomes part of an objectively existing and constantly functioning information process, and its management is a complex and dynamic process associated with constant transformations and the use of large volumes of various information, characterized by a change in parameters and indicators that highlight the external and internal environment of the object.

Modern firms, organizations, and enterprises are characterized by a combination of activities and management functions, the creation of a single management concept, which causes an increase in the amount of information, requires deep analytical processing and consolidation of data, and the use of new methods of their processing. Today, there is a significant need for information on marketing research, which until now has been very limited and is practically non-existent for most products at the industry or state level. At the same time, it is necessary to study not just the demand, but also the needs of consumers and their motivation in choosing products. And this requires collecting and processing more detailed information, identifying trends and perspectives. Measures to stimulate sales, promotion, and advertising activities, which increase the needs of the business entity for information related to the holding of exhibitions, presentations, advertising campaigns, cost calculations and determining the effectiveness of these measures, are of great importance.

The main direction of improving the management of marketing activities is the creation of marketing information systems, which are based on modern hardware and software tools, information technologies, distributed data processing in networks, on the use of economic and mathematical methods and models and decision support systems.

Information system is an organizational and technical system designed to perform information and computing work or provide information computing services that meet the needs of the management system and its users – management personnel, external users (investors, suppliers, buyers) through the use and / or creation of information products. Information systems exist within the framework of the management system and are fully subordinated to the goals of the functioning of these systems. Information systems represent a set of functional structure, information, mathematical, technical organizational and personnel support, which are combined into a single system for the purpose of collecting, storing, processing and issuing the necessary information for the performance of management functions.

The main purpose of functioning of marketing information systems is to improve the quality of marketing management, to provide specialists with the necessary information for making marketing decisions. The result of the operation is the delivery to each user of the system of the necessary minimal, but sufficient for decision-making information, which, according to the content, time of presentation and display methods, makes it possible to effectively perform management functions and procedures.

Among modern marketing information systems, it should be noted, for example, the Marketing Expert system, which is used to support strategic decision-making, marketing planning, modeling of the market state, in particular, market segmentation, assessment of product profitability, profitability of individual market segments, assessment of the company's competitiveness, development of a tactical marketing plan, formation of the optimal portfolio of products and marketing-mix measures (Portfolio analysis), calculation of the coefficient of elasticity of demand and sales forecast, formation of the marketing part of the business plan in accordance with international standards. The Decision Grid system is used to support multi-criteria decision-making in the economy. The Precision Tree Prime Decision system is used to support decision-making in economics based on decision trees in the analysis of product competitiveness and demand.

Today, one of the most important directions in the organization of marketing information systems is data processing in local (Intranet) and global (Internet) networks. On the Internet, it is possible to carry out individual marketing, focused on the needs of a specific consumer, and direct marketing (direct-marketing), which is an interactive sales system with a clearly formulated offer, the availability of information necessary for making purchase decisions, and the possibility of receiving feedback from the client The peculiarities of marketing on the Internet include the shift of emphasis from the producer to the user, the globalization of activities and the reduction of transaction costs, the personalization of interaction, the transition to "one-to-one" marketing.

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MODERN HR TOOLS: AN INDIVIDUAL CHOICE OF A MANAGER OF CONFLICT MANAGEMENT STRATEGIES

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Under the conditions of systemic transformations in the Ukrainian society, the level of conflictogenicity increases. The ongoing changes in the socio-economic and political spheres lead to a change in ideologies, standards and lifestyles, cultural norms and values, which, in turn, provokes the emergence of labor conflicts of various levels, scale and nature.

Not so long ago, HR technologies were considered as one of the necessary, but far from the main and very expensive applications to the core business. And if earlier the owners of companies in informal conversations asked themselves the question, “What are all these HR specialists doing?” or even harsher, “Well, what is the use of this HR department?”, then at the moment the situation has changed. Today, shareholders and top managers of the organization perceive personnel management as a tool that allows them to reach completely new horizons in the development of the company.

The transition of an enterprise to the active use of HR technologies indicates, first of all, that the business has reached a qualitatively new level. After all, the success of any company depends only on the actions of the people working in it, and that is why personnel management should be considered as a strategic component of the organization as a whole.

An HR manager typically has three main roles in a company: administrator, internal consultant, and, increasingly, business partner. The more expectations the management associates with their activities, the greater the set of knowledge and competencies he must possess. Since they are the link between management and employees, and it is between them that conflict and stress situations most often arise, an HR manager should have the skills of a mediator in their arsenal, since knowledge of the basics of mediation will be useful not only for future professional mediators, but also to everyone who has to deal with negotiations.

The mediator acts as an intermediary between the conflicting parties, allows most effectively and with the least loss to resolve almost any dispute. Mediation is actively used today in resolving conflicts at enterprises and between enterprises, as well as in family conflicts (drawing up marriage contracts, supporting divorce proceedings, resolving inheritance issues), and in civil disputes.

Mediation is a form of pre-trial settlement of disputes with the help of an intermediary (mediator). Such specialists are needed so that the conflicting parties can find a starting point in resolving the dispute.

For a long time, the main activity of personnel departments in Ukrainian companies was office work. Today, it is only an insignificant part of the HR manager's duties, which also includes recruitment, staff training and other current personnel issues in the company. To successfully perform this function, a manager, in addition to mediation, should have some knowledge and skills in this area. First of all, they must be an expert in their field, have a good knowledge of the necessary tools and technologies for personnel management.

A very important competence for an HR specialist is focusing on an internal client (head, line manager, ordinary employee) and striving to respond to their needs as efficiently as possible. In addition, he needs to have a developed "execution management" competence, in which organizational skills are manifested: planning, delegation, and the like. The work of an HR manager today is closely related to projects, so the competence of "working on projects" is becoming increasingly important. However, as well as "the ability to establish and manage business relationships with partners" – recruiters, training companies, organizers of corporate events, and so on.

HR managers today, one way or another, perform the role of internal consultants in their company. First of all, it concerns the resolution of internal conflicts, for which the HR manager needs the desire and ability, together with the heads of departments, to find ways out of unusual situations – often using non-standard methods. At the same time, an HR manager cannot do without excellent communication skills, the ability to express one's thoughts in writing and orally, and the ability to conduct group discussions.

Consulting competencies are also needed: for example, identifying the needs of internal customers or the ability to ask the "right" questions.

As a consultant, an HR manager must possess certain personal qualities, which can also be attributed to such competencies as a sense of tact, ethics, a positive attitude towards people, and openness. Empathy – the ability of a person to emotionally respond to the experiences of another – is one of the most important requirements for a personnel manager. To a specialist who does not have such dignity, people are unlikely to go to talk about their problems.

A good HR manager should not only have mediation skills, but also be able to freely apply existing conflict and stress management strategies.

There are four main types of conflict: intrapersonal conflict, interpersonal conflict, conflict between an individual and a group, and intergroup conflict.

All conflicts have multiple causes. The main causes of conflict are the limited resources to be shared, the interdependence of tasks, differences in goals, differences in perceptions and values, differences in behavior, differences in education, and poor communication.

There are several effective ways to manage a conflict situation. They can be divided into two categories: structural and interpersonal.

Structural ones include clarification of job requirements, the use of coordination and integration mechanisms, the establishment of corporate comprehensive goals and the use of a reward system.

Interpersonal ones include: evasion, smoothing, coercion, compromise and problem solving.

In conflict management, integration tools are very useful, such as management hierarchy, the use of services that communicate between functions, cross-functional groups, task forces and meetings. For example, one of the companies where there was a conflict between interdependent divisions – the sales department and the production department – managed to resolve the problem by creating an intermediate service that coordinates the volume of orders and sales. This service was the link between sales and production and dealt with issues such as sales requirements, capacity utilization, pricing, and delivery schedules.

You can also cite McDonald’s as an example, this company has formulated comprehensive goals for all employees, professors Pascal and Athos say:

“Starting to build its empire of fast food restaurants, McDonald focused on more than just price, quality and market share. The company’s management believed that they were really providing a service to Americans with limited funds. This “social mission” gave greater weight to operational objectives. The chefs and waiters at McDonald’s-branded establishments have seen these higher-order goals as a useful tool to help them meet the company's stringent quality control system. It was easier to meet high standards when they were presented in the context of helping the community.”

A modern HR manager is a strategic manager, their duties include the formation of the personnel policy of the enterprise, which implies the development of a personnel training system, maintaining a healthy psychological climate in the team, and motivating employees. The personnel manager belongs to the category of managers. Its main task is to ensure the efficiency of the human resource. The success of an enterprise largely depends on the activities of an HR manager. Cadres decide everything. The old slogan is still relevant today. And it is from the HR manager that the number of necessary personnel, their development and motivation depend.

In addition to the usual qualities of an HR manager, I want to add a number of mandatory skills:

1. *Effective Selling Skills.* Because recruiting is a kind of selling. Not only do recruiters need to sell their clients (internal or external), they also need to be able to sell candidates for job opportunities and be able to explain why Company X is the

dream employer and this opportunity is not just a good chance, but one. - the only chance and luck of a lifetime.

2. *Ability to build and develop relationships*. We must be able to develop and build relationships with the candidates we hire, in practice. Relationships that are based on knowing what drives them and what their hobbies are, as well as engaging in an open and sincere dialogue, rather than a memorized conversation script, etc. By creating a more open, friendly and communicative relationship with candidates, you enhance the experience of the candidate himself, as well as grow professionally as a recruiter, in addition, you create a good image for your company.

3. *Big Thinking*. The ability to see candidates as they fit into the organization, their potential value and usefulness is an invaluable quality of a true professional. Moreover, keeping up to date with the development of new tools, technologies and best practices, as well as being aware of the current environment, will make your company highly aware and competitive in a tough market environment.

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INFORMATION TECHNOLOGIES

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OPERATION FEATURES OF FIRST COMPUTERS

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The word "computer" was first used in 1613 in the book The Yong Mans Gleanings by Richard Braithwaite and originally described a human who performed calculations or computations. The definition of a computer remained the same until the end of the 19th century, when the industrial revolution gave rise to mechanical machines whose primary purpose was calculating.

There is no easy answer to this question due to the many different classifications of computers. The first mechanical computer, created by Charles Babbage in 1822, doesn't resemble what most would consider a computer today. Therefore, this page provides a listing of each of the computer firsts, starting with the Difference Engine and leading up to the computers we use today.

By the second decade of the 19th century, a number of ideas necessary for the invention of the computer were in the air. First, the potential benefits to science and industry of being able to automate routine calculations were appreciated, as they had not been a century earlier. Specific methods to make automated calculation more practical, such as doing multiplication by adding logarithms or by repeating addition, had been invented, and experience with both analog and digital devices had shown some of the benefits of each approach. The Jacquard loom had shown the benefits of directing a multipurpose device through coded instructions, and it had demonstrated how punched cards could be used to modify those instructions quickly and flexibly. It was a mathematical genius in England who began to put all these pieces together.

In 1822 Charles Babbage conceptualized and began developing the Difference Engine, which is considered the first automatic computing machine that could approximate polynomials. The Difference Engine was capable of computing several sets of numbers and making hard copies of the results. Babbage received some help with the development of the Difference Engine from Ada Lovelace, considered to be the first computer programmer for her work. Unfortunately, because of funding, Babbage was never able to complete a full-scale functional version of this machine. In June 1991, the London Science Museum completed the Difference Engine No 2 for the bicentennial year of Babbage's birth and later completed the printing mechanism in 2000.

The distinction between calculator and computer, although clear to Babbage, was not apparent to most people in the early 19^{th} century, even to the intellectually adventuresome visitors at Babbage's soirees, with the exception of a young girl of unusual parentage and education.

Toward that end, Lady Lovelace attended Babbage's soirees and became fascinated with his Difference Engine. She also corresponded with him, asking pointed questions. It was his plan for the Analytical Engine that truly fired her imagination, however.

In 1843 at the age of 27 she had come to understand it well enough to publish the definitive paper explaining the device and drawing the crucial distinction between this new thing and existing calculators. The Analytical Engine, she argued, went beyond the bounds of arithmetic. Because it operated on general symbols rather than on numbers, it established "a link between the operations of matter and the abstract mental processes of the most abstract branch of mathematical science." It was a physical device that was capable of operating in the realm of abstract thought.

Lady Lovelace rightly reported that this was not only something no one had built, it was something that no one before had even conceived. She went on to become the world's only expert on the process of sequencing instructions on the punched cards that the Analytical Engine used; that is, she became the world's first computer programmer.

One feature of the Analytical Engine was its ability to place numbers and instructions temporarily in its store and return them to its mill for processing at an appropriate time. This was accomplished by the proper sequencing of instructions and data in its reader, and the ability to reorder instructions and data gave the machine a flexibility and power that was hard to grasp. The first electronic digital computers of a century later lacked this ability. It was remarkable that a young scholar realized its importance in 1840, and it would be 100 years before anyone would understand it so well again. In the intervening century, attention would be diverted to the calculator and other business machines.

Stages of computer development. The history of computer development should be described using knowledge about the generations of computers. There are five generations of computers. Each generation is characterized by an element base – a type of device elements, from which the RAM and processor are built, and the development of software.

The first ENIAC computer was designed in the USA in 1946 under the leadership of J. Mouchly and J. Eckert. It is from this time that the age of computers begins. In 1948-1951 in the USSR on the basis of the Institute of Electrical Engineering of the National Academy of Sciences of Ukraine (Kyiv), the first computer “MESM” in continental Europe was created. In 1952 the BESM machine was built. "BESM" class machines were considered the best in Europe for a long time. Characteristics of the first-generation computer: element base - electric lamps; large mass and energy intensity; programming – in machine codes; small RAM (Частиков, 196).

In 1955 Bell Laboratories created the first transistor computer of the second generation, TRADIC. In the USSR the small computers “Hrazdan” and “Nairi” were developed and widely used, the medium ones were “Ural” and “Minsk”, but the record among domestic machines of the second generation and one of the best in the world was “BESM-6”, created in Kyiv. Characteristics of the second-generation computer: element base – transistors; much smaller weight and dimensions compared to first-generation computers; use of algorithmic programming languages; lower energy consumption; increased RAM.

In 1964 the IVM company released the third-generation computer of the IVM System/360 series, created on the basis of new computing devices – integrated circuits, each of which contained a large number of transistors. Characteristics of third-generation computers: element base – integrated circuits; developed software; magnetic tapes and disks were used to store information; all modifications of computers and devices were fully compatible with each other for the first time; the first operating systems appeared on third-generation computers (Augarten,1984).

In 1971 the Intel company presented a new development that combined more than two thousand transistors on one silicon crystal. The microprocessor was born, and with it the fourth generation of computers. Characteristics of the fourth-generation computer: the microprocessor is the heart and brain of the computer; high speed; the RAM has increased significantly; reduction of dimensions; cost reduction; ease of use (Апокін, 1990).

A characteristic feature of the 90s of the 20th century was the rapid development of microelectronics, the mass production and use of powerful personal computers-servers and peripheral equipment. New operating systems with a friendly graphical interface and efficient application programs were created. The computers were connected in a network. Characteristics of fifth-generation computers: elemental base – ultra-large-scale integrated devices; impressive performance values, volumes of operational and disk memory; the tasks of natural communication between the user and the computer, the use of artificial intelligence are solved.

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Bobrusenko O. O.

DEVELOPMENT OF STRUCTURAL AND FUNCTIONAL SCHEME OF MODULE FOR OF ASSESSING TECHNICAL-ECONOMIC INDICATORS OF TECHNOLOGICAL PROCESSES

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Improvement of existing, already implemented manufacturing (repair) technologies is characteristic of existing enterprises, the products of which have stable demand. The goal of improving the existing technology is the possible expansion of production volumes or the improvement of technical and economic indicators, for example, the reduction of the cost price.

The implementation of the developed technology requires the need for additional capital investments, and the economic justification of technological development should confirm the feasibility of these additional capital investments when determining profitability.

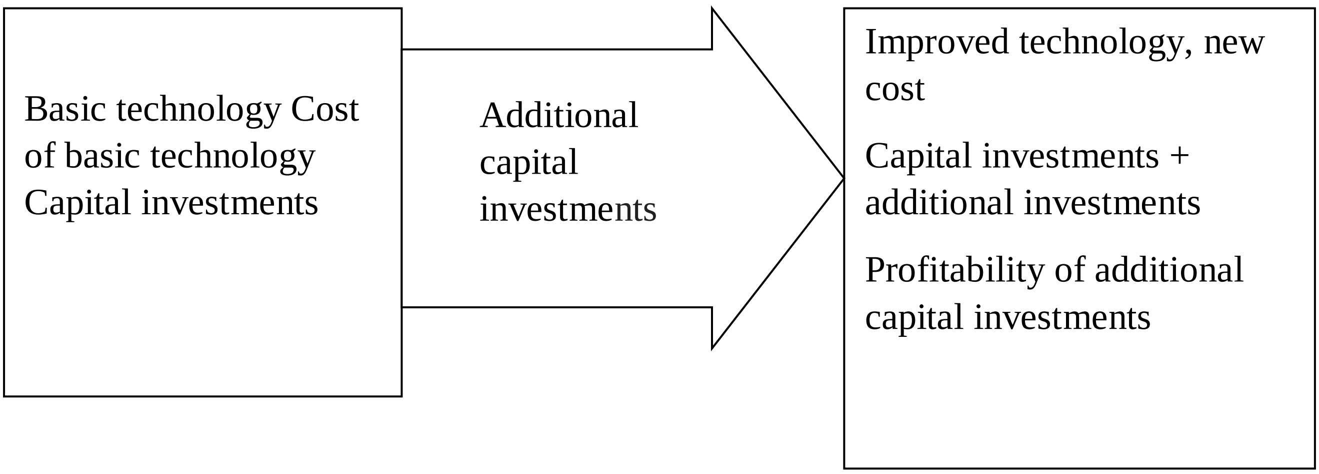

Figure 1. – Scheme of implementation of the improved technology

The sequence of calculations of the economic feasibility of the implementation of technological development to improve the technology, as a rule, includes the following stages:

– selection of a base for technology comparison, collection and systematization of initial data;

– calculations of additional capital investments in production funds;

– calculations of the unit cost of production according to the basic and advanced variants of technological processes;

– calculations of the economic effect, analysis of economic indicators and preparation of a conclusion according to feasibility criteria (technological, social, environmental, etc.) about the need to implement the project in production.

The basis for comparison is selected depending on the purpose of the calculations.

In projects that contain research, the result of which are original design and technological solutions, the technical and economic indicators of the best products designed in Ukraine are adopted as a basis for comparison. In the case of the absence of design developments in Ukraine and the impossibility of using foreign experience, it is recommended to use indicators of products or technological processes at enterprises in Ukraine that have the lowest stated costs per unit of production.

In projects carried out using the materials of existing enterprises, it is recommended to adopt the following as a basis for comparison:

– for improved production (repair) technologies instead of similar ones in terms of purpose – technical and economic indicators of current technologies at this enterprise;

– for improved production (repair) technologies, which were not previously used at this enterprise, – better technical and economic indicators obtained at other enterprises of the industry.

The place of implementation of improved technological processes in projects is usually limited to one enterprise, shops or areas, and the scope is the production program of the enterprise.

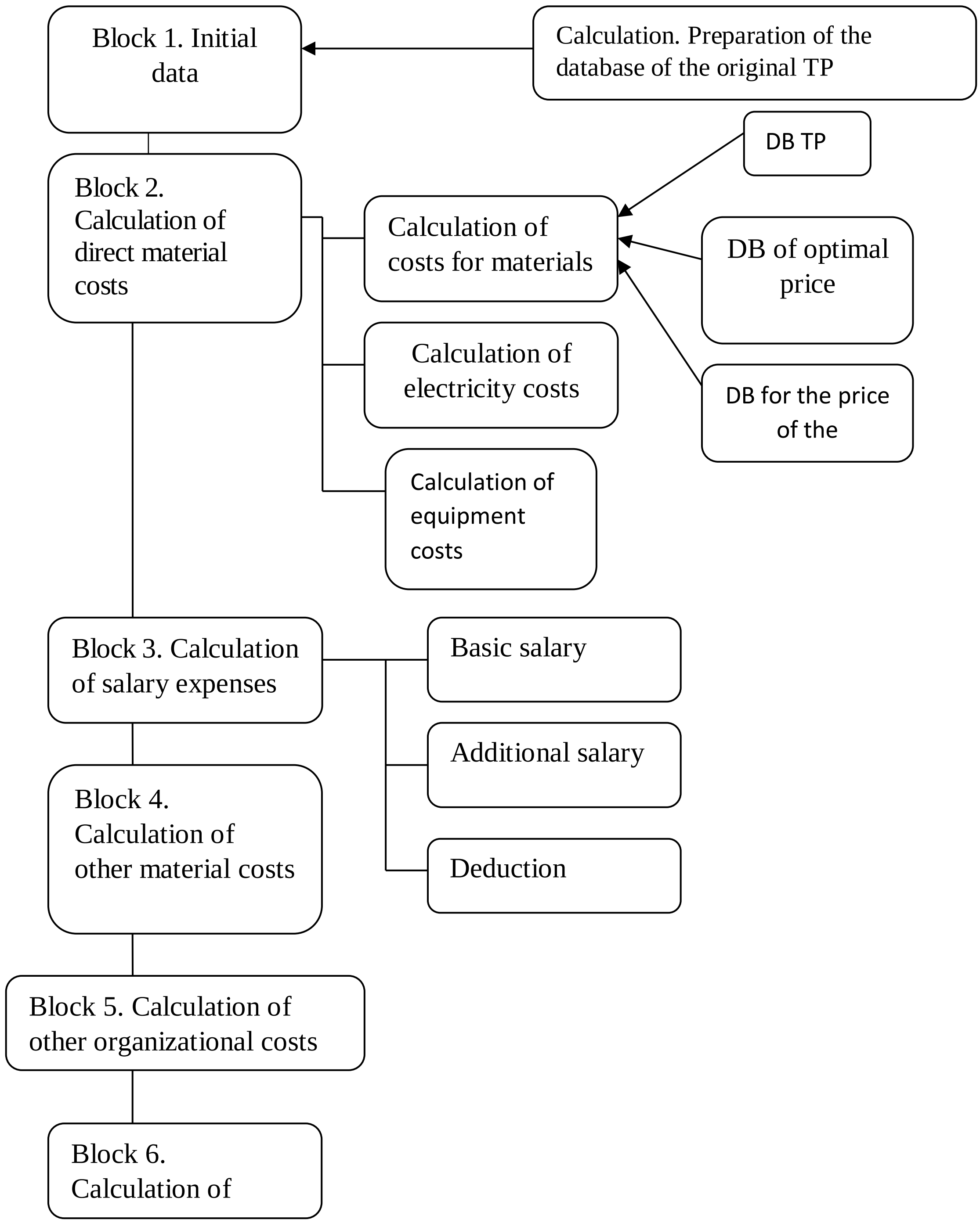

Figure 2. – Structural module in the CAD system of technological processes to evaluate technical and economic indicators

It is convenient to present the initial data for the economic justification of the adopted version of the manufacturing (repair) technological process in the form of a table. The most important components of the initial data are the information on the actual cost price, the actual production output and the unit price of the product at the practice facility.

The cost price of products (works, services) is a monetary expression of all costs of the enterprise for the production and sale of products (works, services).

Price is a monetary expression of the value of goods, an economic category that serves as an indirect measure of the amount of socially necessary working time spent on the production of goods. According to the Regulation (standard) of accounting of Ukraine No. 16 "Costs", the production cost includes the following cost elements:

– direct material costs;
– direct labour costs;
– other direct costs;
– total expenditures.

If the project envisages a partial change of technological processes to improve the properties of marketable products, then cost calculations must be performed on those costing items that change under the influence of the improvement. The cost items of the basic version are approved accordingly at the level of actual costs of the reporting year at the enterprise or are calculated according to the methodology specified in this section.

It is recommended to calculate the technological cost according to the elemental method, which is based on the determination of costs for each element of the technological cost, taking into account the costs of each technological operation. Cost elements of production costs should be determined only for those operations of basic and advanced technologies, for which these costs change due to technological developments.

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Buhaievskyi M. S.

USE OF HYBRID METHODOLOGY IN PROJECT MANAGEMENT

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Due to the fact that today innovations are introduced in almost all areas of human activity, a new, modern meaning of the concept of “project” has emerged, which is considered as a complete, completed cycle of productive (innovative) activity of both an individual and a group, or an organization, or a region, a country as a whole, or a group of countries (international projects).

The process of activity will be considered within the framework of the project, which is implemented in a certain time sequence by phases, stages and stages (temporary structure of the organization of activities). The completion of the activity (project) cycle is determined by three phases:

– design phase, which results in a built model of the system being created and a plan for its implementation;

– technological phase, the result of which is the implementation of the system;

– reflective phase, the result of which is the evaluation of the implemented system and determining the need for either its further correction or the “launch” of a new project [1].

The most suitable modern management approaches include the hybrid management model. Hybrid methodologies that are most adapted to specific projects can help to significantly improve the processes and level of project manageability.

The hybrid methodology according to the “Hybrid Project Management Methodology Manifesto” combines Waterfall and Agile methods to create a new and more advanced one. This methodology combines the thoroughness of Work Breakdown Structure (WBS) and the flexibility of Agile, making it both detailed and fast. Most projects, except for very small ones, can benefit significantly from using a hybrid project management methodology [2].

Roles and responsibilities in a hybrid project organization:

1. Hybrid technology has no dependence on the organizational structure, and there is no need for a PMO (project management office).

2. The project manager takes on the role of product manager. In the hybrid project management method, there is only a project manager or product manager. He or she is considered the business owner of the project.

3. The project manager and Scrum masters are directly responsible for different segments of the project.

4. The project manager has overall responsibility for the project and owns the ownership (copyright) of the project.

5. The project manager primarily deals with the external interface (frontend) of the project (product requirements, customer feedback, breakdown into components, WBS).

6. Scrum masters are responsible for the backend (subcomponents) of the project (list of requirements, sprints, release).

7. The project manager creates a team of relevant Scrum masters and, if necessary, other management personnel.

8. Each Scrum Master creates his team based on the requirements and deadlines of the project [3].

The diagram of the hybrid project management flow is shown below (Figure 1).

It includes the following elements: components, track, backlogs, sprint and project team.

Components: Individual building blocks defined by a product requirements document. For example, a mobile phone has electronics, display, WIFI, and software components. A software product may have a user interface, business logic, and communication components. The product requirements define which components are needed in the project (Bushuev, 2020).

Track: The path to develop and release each component. Some paths may be shorter or longer than others.

Backlog: A list of tasks for each component. Tasks for each sprint are generated from the backlog of the same track. Both the project manager and Scrum Masters add or modify the backlog.

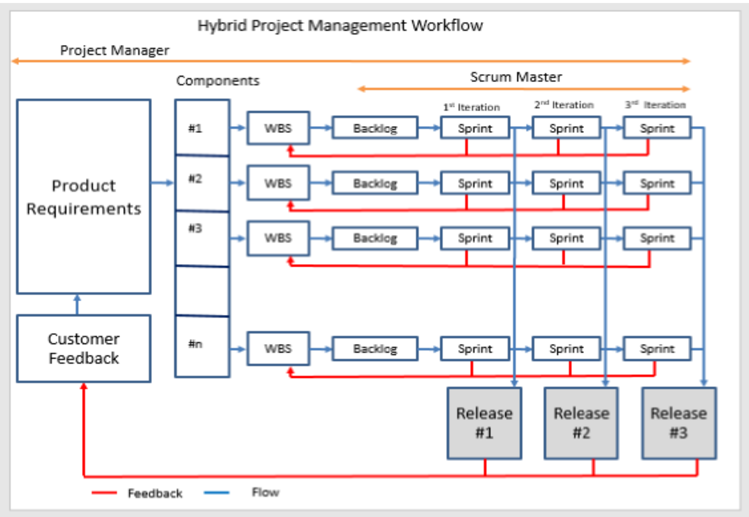

Figure 1. – Management flowchart when using the hybrid method [2].

Sprint: 4-8 weeks of development, each of which includes development, testing and release (deployment). Each track has its own backlog and sprints. Sprints from different tracks are executed in parallel. The result of each sprint from different tracks may or may not be combined with sprints from other tracks to become a release (Bashynska, 2020).

Project Team: Each project team consists of dedicated team members. Core members are 100% dedicated to the project and there is no sharing of resources between multiple projects. Team members report to Scrum Masters for daily development efforts [4].

Consequently, it is through the introduction of hybrid management techniques in terms of the formation and development of individual and especially collective knowledge bases and competencies in the PM that it becomes possible to increase the speed of knowledge accumulation, productivity and quality of decision-making.

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Chala H. V

WIRELESS AREA NETWORKS (WRAN)

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Wireless access networks are designed for wireless access of subscribers to fixed networks, which are based on the infrastructure of optical fiber or cable networks. Wireless access networks can be classified according to the following criteria:

– By the scale of the covered territory.
– By type of connections of subscribers in the network.
– According to the technology used.
– By the speed of the transmitted information.
– By the range of used frequencies.
– According to economic indicators.

Nowadays, three main methods of expanding the frequency band of a radio signal are used

– by means of a jump change in the frequency of the signal (Frequency Hop Spread Signal - FHSS);

– by changing the phase of a single-frequency signal according to the code of the band-spreading sequence (Direct Sequence Spread Spectrum - DSSS) and by applying many signals on orthogonal (independent) carriers (Orthogonal Frequency Digital Multiplexing – OFDM).

Recently, the use of ultra-wideband signals (Ultra Wide Band – UWB), based on the generation of short pulses without carrier frequencies, has been expanding in radio access networks.

The transfer of various types of digital information is gradually leveling off the technological features of companies in different market segments and leads to increased competition between operators. Telephone companies begin to compete with cable companies, CTB operators – to provide telephony and Internet access services, Internet providers (for example, Google) - to provide video and voice services, and wireless network operators master the entire range of fixed communication services.

Increased attention to over-the-air types of access is concentrated around the services of 3G, Wi-Fi and, especially, WiMAX standards. Intel Corporation made the Centrino technology for mobile PCs one of the fastest-implemented computers in world history. 13 Wi-Fi critics believe that this technology is seriously inferior in terms of functionality not only to local networks, but also to EV-DO and WiMAX, and targeting low-income people pushes public access area networks to financial collapse, as happened in Orlando (USA). There, the municipal authorities refused to pay 1,800 dollars. per month for Wi-Fi support, since no more than 27 people per day used the network out of 1.8 million residents. Manufacturers believe that WiMAX can satisfy almost any access needs of high-speed broadband network operators and provide high-speed Internet access wherever there are no cable and wired networks. However, before the mass introduction of this technology, it is still necessary to ensure the compatibility of devices and equipment of different manufacturers, to harmonize the frequency ranges for this standard, and we would like to have more positive examples of its application.

In the field of wireless communication, as before, the dominant position is occupied by the 802.11 group (Fig. 1.2), where the 802.11e standard was recently prepared to support the quality of services (Quality of Service, QoS). Due to the rapid filling of frequency bands in the unlicensed bands of 2.4 and 5.6 GHz, the industry needs these features to appear as soon as possible, since they are absolutely necessary to provide quality services, for example, Voice over IP (VoIP) over wireless networks. The hottest topic in wireless networking is 100 Mbps (802.11n) data transfer technology.

Today, NGN and broadband concepts provide a full range of services that combine voice services, data transmission and Internet access, digital multimedia and interactive audio-video services. The next stage of telecommunication infrastructure development is expected as a result of the creation of so-called sensor networks. The environment that implements transparent access to any sensor (sensor or sensor controller), as well as remote control of executive mechanisms, is proposed to be called BcN (Broadband convergence Network).

Modern wireless networks must provide high security and low cost of both equipment and services, as well as satisfy the new paradigm:

– be distinguished by high scale;
– be reconfigurable and adaptive;
– apply end-to-end packet switching network (IP protocol);
– provide mobile data transmission services transparently (always, everywhere and under any conditions), regardless of the operator's territorial affiliation and the type of access to the wireless environment used.

Transparency of service provision can be achieved by harmonizing the following solutions:

– IP protocol transparency;
– types of addressing (each terminal and/or user must have a unique address regardless of the current location and connection point);
– coordination of protocols at all levels of the network model, primarily at the signaling level;
– mobility management as a global function for automatic roaming and determining the correspondence between a dynamically changing network address (current connection point) and a static terminal name;

– location management (location management), which solves the following tasks: addressing, location monitoring, service information recovery frequency, personal micro- and macro-mobility;

– wireless interface - interaction between different wireless interfaces at different levels.

Harmonization, in turn, is provided by the implementation of the ABC (Always Best Connected) concept, which allows the user of a multi-way terminal to choose an access network (with appropriate QoS) by himself or by trusting the terminal's software when using a certain service. In addition, the user must be able to change his decision at any time if a better option appears during the session.

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Chirva D. S.

DATA VISUALIZATION

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Data visualization is the process of visually displaying information in a graphical or pictorial form to be easily understood by viewers. It helps to explain facts and determine courses of action. It is useful in any field of study that requires alternative approaches to presenting large amounts of complex information. The effectiveness of data visualizations depends on both the quality and design choices made when creating them, as well as on the skills possessed by researchers and creators.

Statistics and data visualization have a long history. They can be traced back to the earliest days of map-making and visual depiction, as well as into themes such as cartography, statistics, and statistical graphics. Along with developing mathematical thinking in the late 18th century, this led to increased data collection for planning and commerce throughout the 19th century.

Large amounts of data are generated every day on the Internet and Web. This is a key to success for any enterprise because it helps them control the data and make better decisions with it. For understanding large complex data, enterprises can use various methods to process that information in order to turn it into knowledge. Data processing involves converting numbers and statistical information into graphical form which makes learning easier, more understandable, and quicker decision-making processes. This reduces confusion among individuals as well as making the data more sharable so that everyone can access it easily. It would be easy to remember and recall the data if it were in graphical form. This makes it easier for us to understand patterns, analyze trends, and extract relevant information from visuals. Data visualization actually helps in communicating complex data with accuracy, clarity, and efficiency. It is commonly used in applications such as education, science, healthcare industries, business, marketing.

The successful visualizations have a few properties in common. They all included a specific and clear objective; they have only relevant information, focused data, and present the data in a way that projects the patterns and relations in the data.

There are various tools and techniques which can be used to convert data in its visual form. Microsoft Word, Microsoft Excel, Microsoft Spreadsheet, and PowerPoint are some popular multipurpose software programs that serve the purpose of data visualization well. These softwares allow users to generate charts such as pie charts, bar graphs, scatter plots, and other types of graphics with simple pull-down menus or mouse clicks. When color is used to represent different pieces of data (e.g., red for money spent on expenses; green for sales), it is important to choose colors that stand out effectively so readers can understand what information is being conveyed visually without having to read through long descriptions. Data visualization helps make complex information easier for people who don't have a lot of time or knowledge about statistics or mathematics. Spatial variables such as position, size, and shape represent key elements in the data. A visualization system should perform a data reduction, transform and project the original dataset on a screen.

General data visualization methods are the following. Line chart is an effective data visualization tool that allow to compare multiple values at the same time interval. They can also be used to show changes in a variable over time. This technique is most beneficial when change needs to be displayed in a clear and concise manner.

Pie chart is also named as circle graph. The data is represented in the form of pie slice. The big slice shows the big amount of data. It is basically used to show the components percentage of the whole. Two popular variations of pie charts consist donut chart and exploding pie chart.

The bar chart is also known as a column chart. It consists of horizontal and vertical bars, which are used to compare different items in groups. This type of chart is most effective when the amount of data is small; it’s mainly used by industries for comparative purposes such as sales, costs, etc.

The bar chart is also known as a column chart. It consists of horizontal and vertical bars, which are used to compare different items in groups. This type of chart is most effective when the amount of data is small; it's mainly used by industries for comparative purposes such as sales, costs, etc.

The scattered plot is a two-dimensional chart that displays the variation between data items. It helps in understanding how closely related the data are by showing where each point locates on the graph area.

Tree map is used to show the data in hierarchical form. The data is represented in the layered rectangular form to show the structure of hierarchies at different depth. The objects can be divided into various divisions and subdivision as per the requirement (Parul, 2020).

It is used to represent and compare the data using different colors. As an example, it can be used to show the best cases in green color, average cases in yellow color, and worst cases in red color which helps the end user to compare the performance of things in one go.

Data visualization is the process of clearly and effectively representing data in a graphical or pictorial format. It has emerged as a highly effective and widely applicable tool for analyzing and interpreting large amounts of complex data. It has evolved into a quick and simple method of communicating concepts in a universal format. It must communicate complex ideas in a clear, accurate, and efficient manner. These advantages have made data visualization useful in a wide range of fields of study.

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Ilhe O. I.

PROFESSIONAL VIDEO CONTENT EDITING SOFTWARE

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One of the most effective and relevant tools for career guidance work is the creation of video content, in particular, video interviews with specialists in a certain field of knowledge. Any video content is finally processed at the editing stage, which is crucial for its formation.

To successfully solve the editing task, modern information technologies are used, based on the use of specialized software, the capabilities of which significantly affect the final result of content creation.

The software market currently contains a fairly extensive sector of video editing programs. In general, the entire set of video editing programs can be conventionally divided into the sector of free products and the sector of commercial programs [1]. The first one presents products that do not pretend to fully cover all possible functionality

In the second sector, commercial programs for editing and editing are presented, in particular, the most popular in the software market are:

– Adobe Premiere Pro;
– Apple Final Cut Pro X;
– Sony Vegas Pro;
– DaVinci Resolve.

Adobe Premiere Pro is a very popular professional video editing program, which is additionally surrounded by a family of useful modules aimed at the flagship product, such as After Effects. It is a product that is well suited for beginners and even quite advanced users [1].

The advantages of Adobe Premiere Pro are fairly high performance, a friendly interface, compatibility with various operating systems, and the availability of sufficiently complete functionality [1, 2].

The disadvantages of the program are the size of the subscription fee, as well as restrictions on the use of hardware acceleration depending on the type of video card.

Sony Vegas Pro is very popular among amateurs and is also used in professional video content production.

The advantage of this program is the presence of a large number of unique and useful functions for working with video. However, this program requires a lot of effort to master its capabilities and is quite expensive [3].

Apple Final Cut Pro X is a software package for video editing by Apple. The program is complemented by Motion animation tools and the Compressor module for encoding files [4].

Benefits include multi-core for increased productivity, friendly interface, composite clips, clip collections (alternative takes), flexible timeline, background processing, many convenient tools. The disadvantages are the lack of compatibility with previous versions, many shortcomings, significant cost. Restrictions in the use of the Apple Final Cut Pro X product - only the Mac platform [4].

DaVinci Resolve is comprehensive, meaning it has tools for editing video, audio, motion graphics, and exporting [5].

The program is easy to use, has a well-structured workflow from adding files to editing them, and is platform independent.

However, you can quickly master DaVinci only if you have experience working with other programs of this type, because the interface is quite complex [5].

When comparing these software products, the most important criteria are the limitations imposed by orientation to a certain operating system, the convenience of the program interface, the completeness of the functionality of the editing program, the possibility of integration with other software products, and whether this software is paid.

According to the last criterion, all considered programs belong to paid software, and their comparison according to the remaining criteria is given in table 1.1.

Table 1.1 – Commercial video editing and editing programs

	Adobe Premiere Pro	Apple Final Cut Pro X	Sony Vegas Pro	DaVinci Resolve
Operating System	Multi-system	Mac OS	Windows	Multi-system
Interface	convenient	convenient	convenient	complex
Functionality	professional	professional	universal	professional
Integration with other programs	Yes	Yes	No	No

From the comparison, it follows that Adobe Premier Pro has a fairly complete functionality and is very convenient to use, as it has an intuitive interface that can be integrated with other programs, which significantly expands the scope of application. The program can work using different operating systems.

Thus, on the basis of a comparative analysis of video editing systems, it is suggested to use the Adobe Premier Pro program, which allows you to increase the efficiency of editing video content.

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Khomenko Y. S.

MODELS, METHODS AND INFORMATION TECHNOLOGIES OF REMOTE DETECTING GROUND LANDMARKS BY AUTONOMOUS MOBILE ROBOTS

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Machine vision to provide spatial coordinate measurement has evolved into a wide range of technologies for several applications, such as robot navigation, medical scanning, and structural condition monitoring, to name a few. Machine vision methods also have applications in search, classification, industrial process robotics (monitoring tools capable of visualizing various phenomena occurring during an industrial process), rescue, vigilance, mapping, detection of dangerous objects / objects and other areas, where vision-based machine control plays an important role. Computer vision has led machine vision to tend to duplicate human abilities. Vision by electronically perceiving and understanding image or multidimensional data and optimizing data storage and processing time requirements through the complexity of algorithms that extract important patterns and trends to understand what the data is saying.

Autonomous mobile robots are becoming increasingly common and can be accessed with machine vision capabilities for various tasks and applications, such as surveillance, 3D model reconstruction, stereo vision-based localization and mapping, cleaning, medical care, and disability assistance and the elderly. All of these robot missions require the ability to work interactively in a human environment and with online learning. Mobile robots with machine vision can be configured to detect, track and avoid obstacles for optimal navigation. They can also estimate his pose and build a 3D structure of the scene. Their vision can be based on autonomous sensors or cameras based on sensors, filters, lenses, as well as electronic and mechanical focusing. Everyday cameras are more considered in research projects because they are affordable, inexpensive, reliable and compact. They record a large amount of data reflecting both photometric and geometric properties of the observed scene; however, they require significant computing power and have a number of limitations associated with the sensors used and their entire optical path design.

The combination of vision and navigation machines is the most promising at the moment, in recent years we have finally seen the full-scale production of everyday devices such as cleaning robots, helper robots for the elderly and so on. Based on previous experience, this is a better marker of the future boom in demand for new competitive technologies in this area.

Thus, the scientific and applied task of developing and organizing information technology based on new models and methods of remote detection terrestrial landmarks by autonomous mobile robots, from which non-stationary signals are received, is relevant.

Detection of ground landmarks by appropriate devices of a mobile autonomous robot (radar, ultrasonic rangefinder, video cameras) is accompanied by a number of problems that need to be solved. A landmark is any concentrated object of natural or artificial origin that can be reliably detected by a robot on the ground and from which the coordinates will be calculated. A ground landmark, as a rule, should have small dimensions in the horizontal plane. In most cases, it is immobile and should appear against the background of immobile objects in the surrounding area. For video cameras, this fact is favorable, but for radar and ultrasonic range finders, on the contrary, it significantly complicates the detection process. This is due to the fact that the signals reflected from the landmark and the surrounding terrain are almost indistinguishable from each other. In the article it is shown that the detection of landmarks by the robot can be realized with high probability in the process of rapid scanning of the space by the antenna due to the estimation of jumps in signal parameters (in particular, amplitude) that occur during scanning. Reducing the width of the directional pattern (DS) of the antenna allows you to receive a signal that is actually reflected only from a landmark, but a similar signal can be received from a terrain element, that is, the radar is not able to distinguish signals from a landmark and terrain even with a significant increase in the antenna gain, transmitter power, and receiver sensitivity. This conclusion is also suitable for an ultrasonic range finder. An increase in the gain of the antenna requires a decrease in the wavelength or a significant increase in the size of the antenna, which is unacceptable for a robot.

The most powerful scattering of electromagnetic waves (EMK) occurs in the resonant range, that is, not at short wavelengths, since real land landmarks have meter sizes. Waves with a short length (centimeter, millimeter ranges) are scattered by grass, leaves, small irregularities of the earth’s surface and objects, as well as by large parts of the terrain. At the input of the receiver, there is often a strong noise due to the scattering of waves from small-scale inhomogeneities of the terrain. EMFs of the meter range are practically not scattered on small-scale irregularities. In the direction of the receiving antenna of the robot’s radar, signals reflected from mirror points of the surface of the terrain arrive. The mirror points of the surface will be called such points in which the beam drawn from the phase center of the robot’s radar antenna is orthogonal to the tangent plane to the surface at this point. If the area on the surface covering the mirror point is commensurate in size with the area essential for reflection (the first Fresnel zone), then the energy characteristics of the reflected signal, for example, the amplitude, are high. In the angular limits of the DS antenna, one can expect the appearance of several mirror points, and therefore, several reflected signals with different amplitudes and phases in the general case (Polyarus, 2020).

The number of mirror points is unknown in advance. In some cases, their number can be estimated with the help of video cameras. Therefore, an interference field of electromagnetic waves is created in the opening of the antenna from an unknown number of reflected waves, and EMF reflected from the reference point may also belong to their number. It is this wave that is of practical interest, but it is difficult to separate it from other reflected waves using only the reflected signals emitted by the radar (Polyarus, 2020).

Let be the amplitude of the signal reflected from the mirror point of the topography surface, and let be its phase. The radar receiver receives a total signal with amplitude and phase. According to the method of complex amplitudes where is the previously unknown number of signals reflected from the mirror points and the ground landmark(s). Signal phases are a function of the distance from the antenna phase center to the mirror point and the wavelength, since the wave number.

Millimeter radar provides relatively high range resolution, but has low angular resolution (azimuth / elevation). A CCD camera, on the contrary, has a high spatial resolution, but a low accuracy of estimating the distance to the object.

So, from this we conclude that the MMH radar and the camera together complement each other.

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THE IMPORTANCE OF SOFTWARE TESTING IN SOFTWARE DEVELOPMENT

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Software testing is a quality control technique that checks the correspondence between the actual behavior and the expected behavior of the program through a final set of tests that are chosen in a certain way.

The purpose of software testing, regardless of who tests it or where it is done, is to ensure the required quality of the software and reduce the risk of errors in the software are bugs.

Bug is the code of the program that leads to distortion or a completely unexpected difference in the actual result and what we expect. The bugs can be minor (for example, a bug in the text), moderate severity (a certain combination of keys causes a bug in the program), or very serious (the system does not work after the bug is reproduced).

Quality is not absolute, it is a subjective concept. Therefore, testing as a process of timely detection of errors and defects cannot fully ensure the correctness of the software. It only compares the condition and behavior of the product with the specification. At the same time, it is necessary to separate testing of software and software quality, which belongs to all components of the business process, and not only testing.

Testing and software quality of software (adjustment) are different concepts. The testing focuses on preventing bugs and finding them in a ready code. Adjustment can be a logical consequence of testing. The goal is to find the code that caused the program to refuse and correct it. Software testing may show some, but not all, defects in the program code. It also shows that the function of the program and its performance can be correct or incorrect, or it can be logical to find a logical failure – this means that the program does what it was told to do, but something was wrong with the underlying (developer or programmer).

It is the customer and/or the user of the software who must play a key role in the testing process. The customer must work with the developer during the planning and design process so that all parties agree on what the final product will be made and how it should look and work. Joel Gilman in the column “Law Report” of the magazine “Systems Integration” in February 1991 suggested that the document of test criteria was developed and included in the initial requirements to the product or contract. Programmers should be responsible for basic software testing. A good programmer should never pass a program to a tester or testing department without first processing the test scenarios that determine if the program meets certain requirements. It should be noted, however, that testers and programmers have different goals when they test the software. Therefore, the tester should perform his functions professionally. For that, there are different courses. One of the best software testing courses you can take at QaStart. On the website of the company qastartup.com.ua, you can see all conditions for passing courses and high level of professionalism of its graduates.

Also for quick training on the tester can be recommended author Roman Savin with the basic book for the test-makers is Testing Dot Com.

It should be noted that it is not necessary to attend the courses at this time, but you can study on Youtube and many websites that contain information on testing the software.

Software testing is a process whose goal is to prevent and expose bugs in software and determine if it meets certain requirements. It is believed that half of the work on software development is testing. There are four general categories, often referred to as software testing. We will talk about them further.

Unit testing tests the smallest parts of the software are the parts. The purpose of such testing is to assess whether the youth meets the requirements of the specification and/or meets the structure of the project. Unit testing should be implemented by the program. There are many tools that can be used to assess whether all the ways in which the software can be implemented have been tested.

The goal of integration testing is to test what is happening when all parts ARE United (integrated) into one whole. Usually, if a problem is found, it is related to the information lost in the integration of such young people.

System testing, based on its name, is aimed at testing the whole system. It is aimed at finding problems, except those that can be attributed to the units and/or their interaction. You can test your system for performance, security issues, and other problems with these types of system tests.

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The test team and the whole team should know when testing begins. Testing, of course, cannot begin until the test program code is written. However, the testing process should start when the software development process begins. The time spent to eliminate errors is much less used when testing is scheduled at the beginning of the design phase than at the end of the project phase. System requirements must be recorded and agreed upon by all parties and these specifications must be used as a basic test plan (Дастин, 2003).

Test plans at each stage should be based on structured requirements. These requirements must be recorded and agreed upon by all parties before the code is written. Test planning should include steps to verify specification requirements, design tests, and finally determine procedures (test scenarios) and/or receive test cases. Test cases are a separate science. The purpose of these is to identify all types of cases that could occur according to each scenario. After the code that is tested is recorded, the tester performs the scheduled tests, evaluates the results, and provides feedback. This feedback becomes a documented fact for the system.

Why is testing in software development so important?

Here are a few reasons:

1. Testing allows you to verify that all software requirements that have been developed are properly implemented.

2. Testing helps identify defects/errors and ensures that they are recognized/resolved before the software is deployed.

3. Testing helps mitigate the consequences and risks of loss if the software product is still released according to the wrong requirements. Requirements in this case try to partially correct or overestimate.

4. Testing also demonstrates that the software created works and meets performance requirements.

5. Testing helps verify proper integration and interaction with the environment (Андон, 2007).

People are prone to mistakes, human errors can cause the normal operation of the software at all stages of software development, and the consequences may vary from minor to catastrophic: well, you think, the button on the site does not light up, to testing the system of control of running a proton-type encoder or testing of the safety of use of x-ray apparatus, which can potentially cause harm to human health. It is not possible to remove all problems for software of any complexity. However, testing helps to identify most of the user's possible errors and potentially reduces the risk of future problems.

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HOW IMPORTANT IS IT FOR A PROGRAMMER TO KNOW ENGLISH

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Language Advisor – CandSc (Education), Assoc. Prof. Rudenko N. V.

The main function and task of a programmer is to create programs using one or more programming languages. At the same time, programs contain many names of variables, functions and classes. Most programming languages have their own syntax, vocabulary, semantics, and even alphabet, but they are all based on English. Today, ignorance of English is a significant disadvantage for all employees of the creative sector. no matter what business is aimed at the general public, communication with English-speaking interlocutors is an integral part of the work, you cannot limit yourself to clients who speak your native language.

According to most experts, it all depends on the area in which the programmer works. If this is an area where a sufficiently large reference base has been developed, then a specialist without knowledge of English will feel quite comfortable there. On the contrary, if this direction is new, fast-growing, then there, most likely, support for the native language will, at least, lag significantly behind, or be completely absent.

Also, knowledge of English provides:

1. Ability to work with customers and companies from anywhere in the world. You don't have to limit yourself to Russian-speaking clients if you are fluent in English. In addition, even if you are developing a product for the Russian market, they may be interested abroad.

2. Current knowledge. Most professional literature and all modern developments, discoveries and innovations are published first in English. They are not immediately translated into Russian, and many sources are generally available only in English. Therefore, without knowing the language, you will not receive important and relevant knowledge.

3. Ability to understand terminology. The vast majority of programming languages (Python, Java, etc.) are built on the basis of the English vocabulary. Knowing it, it will be easier for you to master different programming languages and write code in them.

4. Gaining experience. Knowledge of English will allow you to adopt the experience of foreign colleagues – directly or by reading case studies, articles, blogs. Of course, you can use a translator. But the program does not convey all the nuances of the language, so you can miss important details.

5. Use of any tools and programs. The software you need may not be translated into Russian, which will make it difficult to use it. Often even the translation of guides and instructions does not help due to the not always correct interpretation of words and phrases. Therefore, if you want to keep up with progress, then learn English.

It so happened in the world that English has become the de facto standard: in almost any country, in any online service, you can solve your problem knowing only this language. And the world of programming is no exception - the international community communicates in English. English is very important for the IT industry as a whole, as a rapidly developing industry.

Ignorance of the language significantly limits the development of a programmer as a specialist, as it narrows his information field and social circle. Without knowledge of English, it is quite possible to become a programmer. You will even successfully solve problems from your field, build a career, but this will not be enough (Hunt, 1999).

It's no secret that a huge amount of information and documentation appears first in English. Until it is translated or adapted by someone, a lot of time can pass, and the information will become outdated, and the meaning is often distorted in the process of translation.

But what are the levels of English proficiency? The international system provides for this at six levels:

A1 – Beginner/Elementary (Beginner)

A2 – below average (Pre-Intermediadate)

B1 – intermediate level (Intermediadate)

B2 – above average (Upper-Intermediadate)

C1 – Advanced (Advanced)

C2 – Free (Fluent).

Newbie programmers may not have an Intermediate level of English when they start working, but they still need to learn the language. A good command of English also gives you access to a huge number of conferences and seminars taking place around the world. Even if you are not going to speak with the customer, then all literature, all technical information, documentation is in English. If you work in an international company: business correspondence, terms of reference, communication with the customer – English. And again, without planning communication with the customer or the work does not involve it, English will be extremely useful. The indicator will be statistics: the vast majority of languages are written by English-speaking programmers, and the number of programs in English is greater than any other. In the language, most operators are named with keywords that indicate how they work. Documentation for each language is always written in English and in 70% of cases the comments are in the same language. The same Ruby programming language was invented in Japan, and the documentation is written in English so that everyone understands it. Also professional and near-professional literature, as well as articles, is written in English. Not because it is aimed at an English-speaking audience, but because it is focused on the language of professionals. Professionals from all countries in all areas communicate in English. Therefore, they also read books in the same language. Such a text will be understood by everyone at once, which will greatly facilitate communication and increase of knowledge (Demarco, 2014).

In addition, even a junior specialist must know the terminology necessary for work, own professional vocabulary and be able to find the answer to questions on the Internet in English. To find answers to his questions, he formulates them in English. Most likely, many people have encountered your problem and will help you solve it. Do not limit the scope of perception in one language.

Of course, there will always be those who will tell you that they work well without knowing English. It all depends on the scope of the project. There are great communities around certain frameworks and platforms that speak your native language, but then you will be limited to the domain you work in and certain tools. Changing a project, shutting it down, or moving on to another project can take you back many degrees of language ignorance. How and in what you want to develop is up to you, but it is recommended not to turn a blind eye to at least an average knowledge of the English language.

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PECULIARITIES OF THE STRUCTURE AND PROPERTIES OF MATERIALS FOR SOUND ABSORPTION OF EAVESDROPPING DEVICES IN CYBER SECURITY

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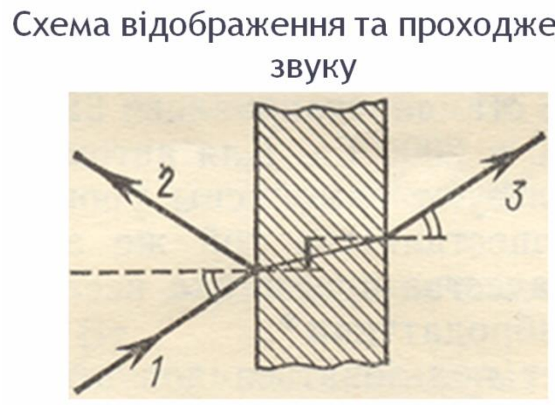
Sound-absorbing materials and products are intended to reduce the level of sound pressure in the premises of residential, industrial and public buildings. The flow of sound energy when sound waves fall on the surface of the fence is partially reflected by the surface of the fence, other sound energy passes through the fence.



The sound absorption coefficient is equal to the ratio of non-reflection of the energy absorbed by the surface to the incident energy per unit of time. Absorption of sound energy in a homogeneous porous material occurs due to energy losses due to viscous friction, which is overcome by the air flow in the pores of the material, heat exchange between the walls of the pores and air, and relaxation processes in the material with non-ideal elasticity of the skeleton. The greater the porosity of the material, the more developed the surface of the pores and the more time they communicate with each other, the greater its sound absorption.

Коефіцієнт звукопоглинання

$$\alpha = \frac{E_{погл}}{E_{пад}} = \frac{E_{пад} - E_{отр}}{E_{пад}}$$

$E_{пад}$ - енергія, яка падає на огородження

$E_{отр}$ - енергія, відображена

$E_{погл}$ - енергія, поглинена

$E_{прошед}$ - енергія, яка пройшла через огородження

Коефіцієнт відображення

$$\beta = \frac{E_{отр}}{E_{пад}}$$

$E_{пад}$ - енергія, яка падає на огородження

$E_{отр}$ - енергія, відображена

$E_{погл}$ - енергія, поглинена

$E_{прошед}$ - енергія, яка пройшла через огородження

Коефіцієнт звукопередачі

$$\tau = \frac{E_{прошед}}{E_{пад}}$$

$E_{пад}$ - енергія, яка падає на огородження

$E_{отр}$ - енергія, відображена

$E_{погл}$ - енергія, поглинена

$E_{прошед}$ - енергія, яка пройшла через огородження

Еквівалентна площа звукопоглинання поверхні

$$A = \alpha \cdot S \ (\text{м}^2)$$

- **добуток площі поверхні на її коефіцієнт звукопоглинання** (тобто площа такої щільністю поглинаючої поверхні, яка поглинає стільки ж енергії, скільки дана поверхня)

Therefore, sound-absorbing materials should have a large open porosity, preferably connected and branched. The desired pore sizes are from 0.01 to 0.1 cm. Sound absorption at low frequencies occurs in larger pores. An increase in the humidity of the material sharply reduces the sound absorption coefficient over the entire frequency range.

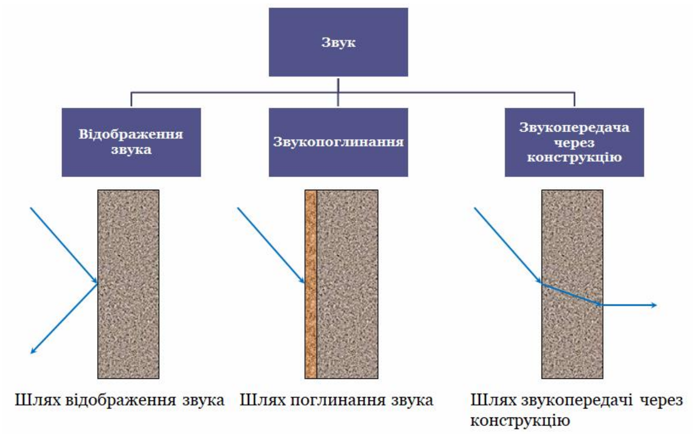
Most of the currently used sound-absorbing materials are highly hygroscopic and do not have water resistance. When operating in an environment with a relative humidity of more than 70 %, they can quickly absorb moisture from the air. As a result, these materials and products lose their sound-absorbing properties.

The most effective sound-absorbing materials, which have high values of sound absorption coefficients in a wide frequency band (from 125 to 8000 Hz), are mineral wool products made of super-thin fiberglass. At the same time, in order to perform its acoustic functions, such a coating must be porous, that is, non-hermetic. Few manufacturing companies manage to perfectly combine such requirements.

Quite effective sound-absorbing materials with a density of 250-500 kg / m^3 are obtained from expanded perlite and binder from liquid glass or synthetic resins. “Silakpor” gas silicate boards are usually produced with a density of up to 350 kg / m^3 in a dry state. At the same time, the compressive strength is up to 0.1 MPa. the industry produces gypsum boards with through perforation. The slabs are reinforced with crushed fiberglass and polyvinyl chloride cord, porous glass, and perlite, an effective two-layer material, the outer layer of which is a perforated plasterboard sheet, and the inner, underlying layer is a non-woven fabric or filter paper.

Sound-absorbing decorative products are produced mainly in the form of plates, which have a good decorative appearance, and various sizes. The texture of these plates can be slotted, cracked, grooved, round, have reliefs and be colored. It is better to place sound-absorbing slabs in structures with different air gaps – “at reference”. Resonators are used for sound absorption in structures, that is, shields or plates located at some distance from the surface of the enclosure; in addition, resonator perforated screens are used, located far from the fence and pasted on the back side with a fabric coating.

In public and industrial buildings, sound-absorbing devices are used, which are made of metal, plywood, plastic in the form of perforated panels, located “off-set” from the wall. They use a hollow sound-absorbing ceramic brick that has the shape of an acoustic resonator – a cavity with a narrow neck. Ceramic sound-absorbing material is not only a decoration, but also carries a building element.



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Pysmennyi M. S.

PROBLEMS OF TECHNICAL PROFESSIONS IN UKRAINE

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Recently, the computer direction has taken a leading position in the labor market due to high wages and the prestige of the profession. Working in the office at the computer has become much more popular than «working with your hands». As a result, most technical professions are not relevant and not promising.

There is an opinion that it is difficult for people with technical education to find employment because of the unprestigiousness of this direction. However, according to the State Statistics Service, it is most difficult for people with the education of a lawyer, manager, economist or accountant to find a job. Today, an important aspect for employment is the presence of a diploma, which confirms the qualifications of a future employee. The employer is not interested in an employee who has no education, work experience, but has a real desire to work. And this is a big problem. Often people are forced to give up the desired job, because higher education is necessary for employment.

Currently, technical specialties are highly demanded in the labor market. This can be seen from the fact that technical specialties occupy a leading position in the labor market today. However, with a significant number of specialists, the labor market remains not closed, and therefore in demand for employers.

Let's start with the fact that technical specialties are, as a rule, professions related to technology, development, repair and further operation. These professions are considered mainly as classical specialties, which are studied by students who left after the ninth grade. After all, to work in the technical field, you do not need to have special scientific abilities. It welcomes the desire to work and strong hands. But all technical specialties carry the following disadvantages:

– risk of injury;
– occupational diseases;
– responsibility for work results.

Therefore, the employer does not want to have an employee who does not have sufficient knowledge, competencies and professionalism. The absence of these factors in most cases leads to errors or poor performance of their duties. As for injuries, you need to understand that working with your hands is not completely safe, even if all safety rules are observed.

Why technical specialties are no longer a priority? If you ask applicants of educational institutions where they will enter, then a significant part of them will answer that they choose the IT direction. Why is this happening, if technical specialties in Ukraine have considerable prospects?

According to the analysis performed, it was found that there is a significant lack of specialists in the technical field. It is worth noting that professions that were welcomed at the end of the last century have lost their attractiveness today due to the following reasons:

– low salaries;
– dangerous working conditions;
– harmfulness of production for workers;
– stressful situations;
– stereotypical attitude.

However, it is worth noting that there are also pluses for such technical professions:

– relative ease of obtaining a qualification;
– demand;
– a wide range of destinations.

The war only actualized the demand for these technical specialties. Particularly in demand:

1. agronomists;
2. excavator drives;
3. construction machinery operators;
4. drivers;
5. welders;
6. locksmiths and others.

It should not be forgotten that the preparation of highly qualified specialists requires a significant period of time. Histogram for the training of a highly qualified specialist in technical specialties has been studied.

Analyzing the histogram shown that it can be seen that the training of highly qualified is carried out in three stages:

1. education (lyceum, technical school, higher educational institution);
2. work (implementation of acquired knowledge in the learning process);
3. experience (obtaining the necessary competencies and professionalism as a result of work).

Thus, it takes an average of 7.5 to 20 years to train highly qualified specialists.

It should be noted that for the development of a technical specialty, on average, it takes from 7.5 to 13 years, and for the training of teachers who will provide the necessary knowledge to future specialists, it will take about 20 years.

The state needs to increase the prestige of education and the work of teachers, develop and modernize the network of educational institutions, develop a dual form of vocational education and stimulate the participation of employers in this, provide a mechanism that meets the realities and sufficient funding for the sphere, and develop public-private partnerships.

When the above shortcomings are eliminated, a sufficient number of specialists in the necessary specialties will appear and people will be interested in choosing precisely technical professions.

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GLOBAL COMPUTER NETWORKS.

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Internet is a global computer network connecting governments, companies, universities and many other networks users. Electronic mail, conferencing, and chat services are all supported across the network, as are the ability to access remote computers and send and retrieve files.

The technical underpinnings of the Internet were developed as a project founded by the Advanced Research Project Agency (ARPA) to research how to built a network that would withstand bomb damage. The internet itself began in 1984 with funding from the US National Science Foundation as a means to allow US universities to share the resources of five regional super computing centres. The number of users grew quickly, and in the early 1990 access became cheap computers. As the amount of information available via the Internet grew, indexing and search services such as Gopher, Archive, Veronica, and WAIS were created by Internet users to help both themselves and others. The newer World Wide Web allows seamless browsing across the Internet via hypertext. Public Internet began in the late

70`s. In the 70`s web users used an interface called telnet, but now that program is mainly obsolete. Telnet is most widely deployed in accessing college email accounts. The Internet is very helpful, because it`s a huge database of Knowledge, from the pictures of family trips to an analysis of quantum mechanics.

By late 1994 it was estimated to have over 40 million users on 11000 networks in 70 countries, with an estimated 1 million users join each month. In April 1995 Internet Shopping Network, an interactive shopping facility, went online. In its first months, 36000 people subscribed.

Nowadays the most popular Internet service is e-mail. Most of the people use the network only for sending and receiving e-mail messages. They can do it either they are at home or on the internet club or at work. Other popular services are available on the Internet too. It is reading news, available on some dedicated news servers, telnet, FTP servers, etc.

In many countries, Internet could provide businessman with a reliable, alternative to the expensive and unreliable telecommunications system its own system of communications.

Commercial user can communicate cheaply over the Internet with the rest of the world. When they send e-mail messages, they only have to pay for phone calls to their local service providers, not for international calls around the world, when you pay a good deal of money (Ярцева, 2009).

But saving money is only the first step and not the last one. There is commercial use of this network and it is drastically increasing. Now you can work through the internet, gambling and playing through the net.

However, there are some problems. The most important problem is security. There are many encoding programs available. Notwithstanding, these programs are not perfect and can be easily be cracked. Another big and serious problem of the net is control. Yes, there is no effective control in the Internet.

In the future, the situation might change, but now we have what we have. It could be expressed in two words as an anarchist’s dream.

Everywhere we go, we hear about the Internet. It's on television, in magazines, newspapers, and in school. One might think that this network of millions of computers around the globe is as fast and captivating as television, but with more and more users logging on every day and staying on longer and longer, this «Information Superhighway» could be perhaps more correctly referred to as an expressway of big centre at rush hour.

It is estimated that thirty-five to forty million users currently are on the Internet. According to a recent statistics, an average Internet calls last 6 hours or longer. This can cause an overload and, in turn, cause telephone network to fail. The local network was designed for short calls often occupy a line for hours. With so many users in the Internet and their number is growing by 200 percent annually, it certainly provides new challenges for the telephone companies. The Internet, up to the beginning of the 90's, was used only to read different texts. Then in the early 90`s a way was made to see pictures and listen to a sound on the Internet. This breakthrough made the Internet to be most demanded means of communication, data saving and transporting (Кубарьков, 2010).

However, today's net is much more than just pictures, text, and sound. The Internet is now fill with voice messages, video conferencing and video games. With voice messages, user can talk over the Internet for the price of the local phone call. Nowadays we no longer have to own a computer to access the Internet. Now, devices such as Web TV allow our television to browse the Web and use Electronic Mail. Cellular phones are now also dialing up the Internet to provide E-mail and answering machine services. The telephone network was not designed and built to handle these sorts of things.

Many telephone companies are spending enormous amount of money to upgrade the telephone signals. Fiber optics user pulses of light to transmit binary code, such as that used in computers and other electronic devices. As a result, the amount of bandwidth is incredibly raised. Another solution for the problem is fast modems which satisfy the need for speed.

By accessing the Net through the coaxial cable that provides television to our homes, the speed can be increased 1,000 fold. Faster ways of connecting to the Internet may sound like a solution to the problem, but just as new lanes on highways attract more cars, a faster Internet could attract many times more users, making it even slower than before.

In conclusion, I should odd that if we want to keep the Internet usable and fairly past, we must not only improve the telephone lines and means of access, but also be reasonable in usage.

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Volkov D. S.

FIDO2: THE BRAND NEW STANDARD FOR SECURE AUTHENTICATION

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It won't come as a surprise that with a darting tendency to digitalize every business and every governmental institution, cyber-attacks have definitely become a commonplace across the globe. Without a doubt, cyber-attacks are on the rise and the angle cyber-attacks are conducted is constantly changing as cybercriminals are always coming up with more advanced and technologically sophisticated methods to penetrate systems. As the war in Ukraine began, the situation has drastically changed as Ukrainian critical energy infrastructures and power plants have been a target of cyberterrorists trying to take advantage of security vulnerabilities. Although Ukraine has been able to fend off numerous cyber-attacks, they are still the reason for the mayhem we continue to see on a daily basis. Therefore, modern data protection methods must be implemented as soon as possible to prevent severe implications of cyber-attacks. So, this is the situation where new authentication standards such as FIDO2 might come in handy.

FIDO2 stands for Fast Identity online and its purpose is to get rid of passwords, because in most cases hacking solely isn’t the problem, the most vulnerable factor in the supply chain is the human factor. Statistics show that up to 90 percent of breaches are caused by employee negligence and common illiteracy in the sphere of cybersecurity. FIDO2 protects against notorious online attacks such as phishing or man-in-the-middle attacks.

How the authentication process actually functions in FIDO2

In a nutshell, when the user signs up with an online service, a new pair of keys will be generated on the FIDO2 device (a Public FIDO2 key and a private key). The private key is always saved on the client's side and only the client has physical access to it, and the public key will be stored in the database of the website. So, the authentication will be done locally with the use of pre-saved biometrics. And as a result, it would simplify the log in part to a great extent, because the one won’t have to keep all the passwords and log in credentials in mind. With all that in mind, authentication is only possible if the physical key with FIDO2 is provided and the user decides to interact with it.

Here is an example consequence of how the log-in procedure will be executed:

1. The unauthenticated user visits the service using a mobile or desktop browser and is redirected to the login page.

2. On the login page, in addition to the traditional username password option, the user will have the option of logging in using local biometric authentication (FIDO2).

3. If that user was previously registered, an exchange of cryptographic keys would occur between the server and the browser.

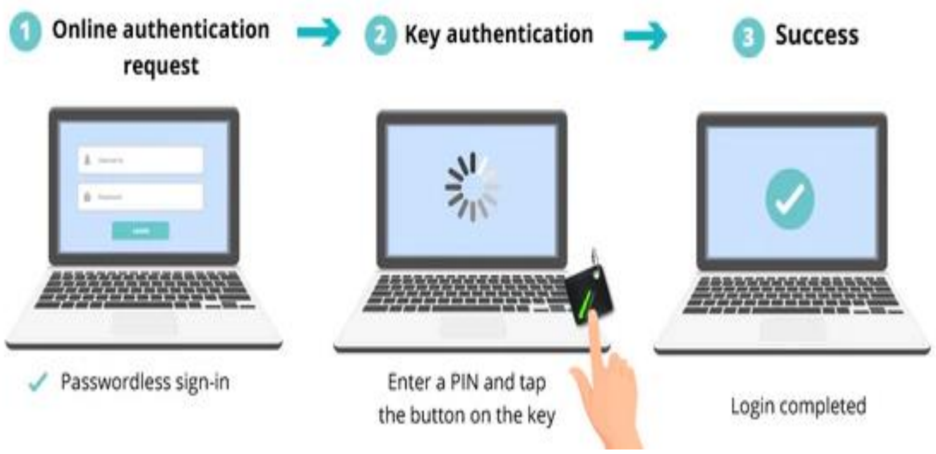

Figure 1. – Advantages of using the FIDO2:

– Convenience – Users can simply use a built-in fingerprint scanner to provide rapid, secure, and convenient authentication.

– Privacy – Cryptographic keys are unique for each service, so cyber criminals are not able to abuse the track between different sites.

– Security – To access your private information, attackers will need a FIDO2 authenticator, which is physically always by your side in the form of your device or your biometrics.

– Scalability – FIDO2 offers a high scalability model. Almost all web applications can be modified to implement it.

All in all, the current threat model can be at risk if you have admin access at work, are in the public eye, or are being a target of phishing. It is of utter importance to consider using FIDO security keys to prevent attacks.

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Volkov K. G.

TYPES OF PROGRAMMING LANGUAGES AND THEIR PURPOSE

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There are many kinds of programming languages. On one hand they are actively used to solve some simple tasks, but on the other hand they are used in the most difficult areas of activity, to solve some very difficult tasks. A novice programmer must make a serious step and choose the language or languages that suits him, it depends on what area of programming he will have to work in, whether it will be easy to find work and orders, or whether it will take a lot of work for starting making something. All this directly depends on the type of language that the beginner has chosen.

Exploring such a question as the types of programming languages, one can come to the conclusion that serious separation does not exist here. Even in terms of the classification of languages, there is complete confusion and controversy, just the same happens in the definition of types of languages.

It is best to divide languages into some types by looking at their purpose and scope. Some languages are designed for working with the web, others for creating computer software, and others are best suited for mobile development. There are also common languages that are actively used in almost all areas of programming. Let's discuss the most common types of programming languages, depending on their scope.

The Internet has been rapidly developing over the past decade and everything related to this area is very demanding, expensive and profitable. Trade and business are rapidly shifting here, more and more people use banking services remotely with the help of banking programs, entertainment has also gone to the Internet (games, movies, books). All this requires the active work of programmers and special types of programming languages are used in this work. Consider a variety of programming languages for web development and their main features.

HTML is a hypertext markup language for web pages. It appeared in 1993 at the world famous scientific center CERN. HTML was created by Tim Berners-Lee.

Initially, the language was created for use in an academic environment and was intended for the exchange of documentation. The main role in the design of the document is occupied by the so-called tags, thanks to which the most important elements of the document are set: title, header, tables, and more. The language is easy to learn and is able to beautifully represent almost any document. Opening HTML pages is carried out by special applications - browsers.

Cascading Style Sheets, or CSS, is designed to spruce up the dry look of an HTML document and make it more visually appealing. With the help of this language, fonts are created for text on Internet pages, the colour of the text, its size are changed, animation is superimposed. With this language, you can greatly simplify the look of an XML document and make it smaller and simpler.

Instead of assigning the desired properties to each paragraph of text, you can simply create a single style for all the required paragraphs using CSS and apply it in the right places. This saves the programmer’s efforts, makes the site faster and more versatile for opening in different browsers and on different devices. Of course, CSS is not part of the general-purpose programming languages, but, nevertheless, it does an excellent job with the tasks assigned to it.

A universal programming language for the web area, with which you can create any kind of sites, web applications, online services, debug servers, and even create remote operating systems. If the above languages do not give their owner significant advantages in programming, then PHP opens up significant opportunities for a person and the road to career growth. Of course, mastering the language will require more effort and time compared to HTML or CSS, but it will more than pay off in the future.

The smartphone market is still growing rapidly and gadget fans are looking forward to the introduction of the new product from Apple or Samsung. Along with these, the popularity of development for gadgets is only growing. This type of language is used to create mobile applications and services. For programs for Android, a bundle of Java + Android Studio (a proprietary program from Google) is used. Java is the main language in which all the mechanics and functionality of the application are written, and Android Studio is necessary to create its appearance. (Васильєв, 2017)

For Apple devices, programs are written in two main languages: Swift and Objective-C. Each of them has its fans, but their capabilities are approximately equal. What are these languages for? All for the same tasks - creating applications, interfaces and other amenities for the iPhone, Mac.

Another big area of programming is very much in demand nowadays. The programming languages used here and their purpose are quite diverse, but among the leaders are the following:

– C. Excellent, but already old language, which is used to create OS, drivers, various software, has all the properties of a low-level language;

– C++. A more advanced version of the previous one, capable of performing any required actions for a PC. Actively used to create games;

– Python. A relatively simple but versatile language that can be used to easily develop software that is both fast and simple;

– Ruby. With it, you can implement multi-threaded modes of operation, easily interact with the machine's memory, easily load the necessary extensions in automatic mode, and much more.

There are also more careful divisions of languages into types, but these areas completely overlap most of them, since they are the most popular and in demand now.

In general, these are the main types of programming languages and with their help you can easily implement any ideas of a programmer from creating an online store to writing an intricate game for a mobile phone.

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Yurchenko D. A.

WEB DESIGN AS A MODERN ART

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Nowadays, many people are wondering: what is art? Currently, technologies do not stand in one place, but are constantly evolving. So, it was from this development that digital art emerged, namely web design. This industry has provided a wide range of opportunities for the development of art and all mankind. Internet culture is one of the models of a society's culture, which expresses the value system of modern society. Web design has a direct impact on the culture of users, on their visual thinking and perception of the world, on the formation of goals and taste.

Nowadays design is a mandatory and integral part of any project, product, packaging or website. Art is designed to evoke emotions, this is its main purpose and purpose. That is why design can absorb ideas implemented by old masters and creative people of bygone eras. In modern scientific literature, design is considered as "a type of design and artistic activity associated with the development of an objective human environment, communication systems and visual information, as well as the organization of human life and activity on a functional and rational basis". Creating the look of a website is not easy. It is important that users like it not only from a purely aesthetic point of view, but also it is convenient to use, allows you to quickly place an order or buy a service. However, it is the attractiveness of the design that can attract the client's attention, make the first impression of the site and pleasantly surprise the user. Therefore, design can be compared to art. The designer uses a wide range of design tools: technical design, compositional formation, pattern formation, functional analysis, development of organizational and conceptual models of the subject environment. At the same time, the arsenal of design practices is subject to definition by the designer's general symbolic cultural and artistic understanding of the whole complex of problems of the subject and the world of communication. Cultural and artistic creativity, skills and knowledge are the foundation in such professional fields as graphic design, digital design, architecture and interior design.

How can art influence web design? Well-known works of art can be used in the design of websites as the main element and as decorative details. You can take ideas from works of art, for example, compositional details, a palette of colors, plots. The website design can be created in a style that was inherent in a particular era. For example, in the style of Baroque, impressionism or futurism.

One of the current trends in digital design is web design, a web development industry based on the design and creation of user interfaces for various websites and applications. The task of a modern designer is to learn how to harmoniously and aesthetically visualize the structure of the site, as well as to arrange information as conveniently as possible in a convenient, accessible and understandable form for the user. To form a visual culture, a designer needs to know modern information technologies, possess special basic graphic programs: Figma, Adobe Photoshop, Adobe Illustrator, etc. When creating a website, it is necessary to possess the tools of project activity: composition and its means, style, psychology of color, sign system, infographics. The lack of this knowledge contributes to the incorrect presentation of information, incorrect placement of navigation signs, as a result of which it will be difficult for the user to find the necessary information and, accordingly, the traffic to the web page will decrease. Any website should be uniform in style, its blocks should be interconnected and represent a holistic picture. One of the fundamental nuances of style It is an aesthetic and logical combination of fonts, shapes and color combinations. Compositional solution, competent placement of text, images and navigation elements is also important in the process of designing a website.

Creating a website requires an in-depth study of isotopes, the way the user interacts with the interface, the mechanism of building and using modular networks, as well as the study of trends and patterns of modern design. In order to develop creative thinking, culture of perception and successful implementation of ideas in practice, the designer needs to constantly develop the skills of creating various comparisons of figurative solutions in art and design. Therefore, at the modeling stage, a modular network is created taking into account the size of the required screen resolutions (for computers, tablets and mobile phones), which requires professional skills. The designer's professionalism is manifested in the compositional arrangement of elements, their color composition, the choice of lines, the layout of graphic images, as well as in the choice of style. The designer participates in the development of new synthetic techniques and the search for new means of expression.

One of the modern and relevant directions in the creation of website web graphics is animation graphics. Animated effects are often used for advertising purposes, screensavers, to create moving compositions. This makes the site lively and more attractive. In the structure of modern web design, there are three types of animation in the creation of websites:

1. Gif animation is one of the simplest types of web animation, where the browser does not need to load third-party plugins and extensions to display graphic elements. This type of animation is the introduction of graphic elements into the structure of the site with successive images, each of which has its own time interval. The downside is the low level of quality and smoothness of the animation.

2. Flash animation - implemented using Adobe Flash. Its purpose is to attract attention, focus on style and dynamic visualization of the image of the site. Examples of Flash animation are flash banners, postcards, electronic product catalogs, presentations and other elements.

3. Web animation using java scripts, html5 and css3. To implement it on the site, you do not need to install additional plugins on your computer, since it is implemented by the browser engine and does not require the installation of a flash

player library. Sites with this animation load much faster and are less costly financially compared to flash animation. To implement it on the site, you do not need to install additional plug-ins on your computer. Sites with this animation load much faster and are less costly financially compared to flash animation.

To master visual culture, a designer needs to develop the ability to analyze visual images, interpret, evaluate, compare, represent, and create individual artistic images on this basis. The created design projects are designed to favorably influence the human psyche, develop the level of human culture, be attractive from an aesthetic point of view, be easily perceived so that the user is comfortable and pleasant to work with the website. For any designer, the cultural component of his professional activity is very important, he must be competent and responsible.

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Zelenko A. V.

MODEL OF THE INFORMATION AND CONTROL COMPLEX OF THE CONSTRUCTION MACHINE

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Language Advisor – Instr. Umantseva J. A.

Information and management complexes of our time play a significant role. After all, automation is everywhere, which is gaining momentum and developing more and more. Now we will consider several areas where and for what it is used. However, first, we will consider what information systems and information-management complexes are.

Information system is necessary for storing, searching and processing information, the mandatory element are:

1. Data
2. Hardware and software
3. The staff

Information and control complexes is a system that controls or manages technical devices.

In our century, everyone needs automation of decisions and time. Let's consider several options for the manifestation of systems and complexes in different areas.

In medicine, they found application, for example, they automated the document flow between the doctor and the patient. The doctor can find the patient's medical record in the local electronic database of the hospital or polyclinic. The patient can also make an appointment, find a prescription or record in the same database in his personal office. It is very beneficial to save time for both.

The next example is production processes.

In this field, information systems are developing more than in other fields. Perfection and automation are the key to the success of the enterprise. The use of information systems in the automation of this area of production also contributes to the reduction of the cost of production in combination with the improvement of product quality, which ultimately leads to the optimization of production, which is the ultimate goal of the introduction of information systems into production.

We will talk a little more about information systems.

Depending on the scope of application, it can be divided into the following classes:

1. The technological process management information system is used to automate the work of production control and management personnel.

For example, measuring temperature, pressure and chemical composition during the manufacture of any items (spare parts).

2. The automated design information system is designed to automate the work of design engineers, architects and designers.

For example, engineering calculations, modeling of schemes and objects.

3. Corporate information systems are used to automate company functions. Here are some options, from business planning to product sales.

Looking at all this, we can conclude that there is a steady trend of increasing demand for the development of automation in various directions. It is this trend that shows how our country is developing and confidently moving forward.

And now let's move on to the information management system.

The information and control system is a set of hardware and software tools, methods and automation algorithms.

The main idea of an intelligent vehicle is its ability to constantly monitor the interaction between the driver, the car and the environment to ensure efficient and safe driving.

Modern approaches to the development and implementation of information systems at enterprises.

The technological process of information processing of information systems consists of separate operations that are implemented with the help of a complex of technical and software tools.

The complex of technical and software tools is constantly expanding, which is due to the development of information systems in the direction of the use of various information environments, including multimedia ones.

Information technology software is heterogeneous, part of the software refers to the basic software, without which the work of technical means is impossible, the other part refers to the application software.

The figure below shows the classification of software tools of information systems.

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NATURAL SCIENCES

Drobot K. Y.

ASSESSMENT OF THE ENVIRONMENTAL STATE OF THE DESNA RIVER

Language Advisor – Asst. Prof. Vorobieva S. V.

The Desna is a large river and the second largest tributary of the Dnipro with the largest catchment area of 88,900 km2. As a transboundary river, it flows within the borders of two states – the Russian Federation (the area of its territory is 62%) and Ukraine (about 38%), where its area is 33,830 km^2.

One of the individual indicators of water quality is the BSK5 content. This indicator can be considered one of the indicators that characterize the ecological state of water object. The concentration of BSC indicates how much oxygen bacteria need to oxidize organic substances in water, reflects the trophic conditions of plankton existence and is therefore a criterion of water quality. Based on the values of concentrations of BSK5 in the water environment, the authors of works [1, 2] proposed to indirectly classify the quality of surface waters. Table 1 presents the classification of water quality according to the BSK indicator.

Table 1. – Classification of water quality according to the BSK5 indicator

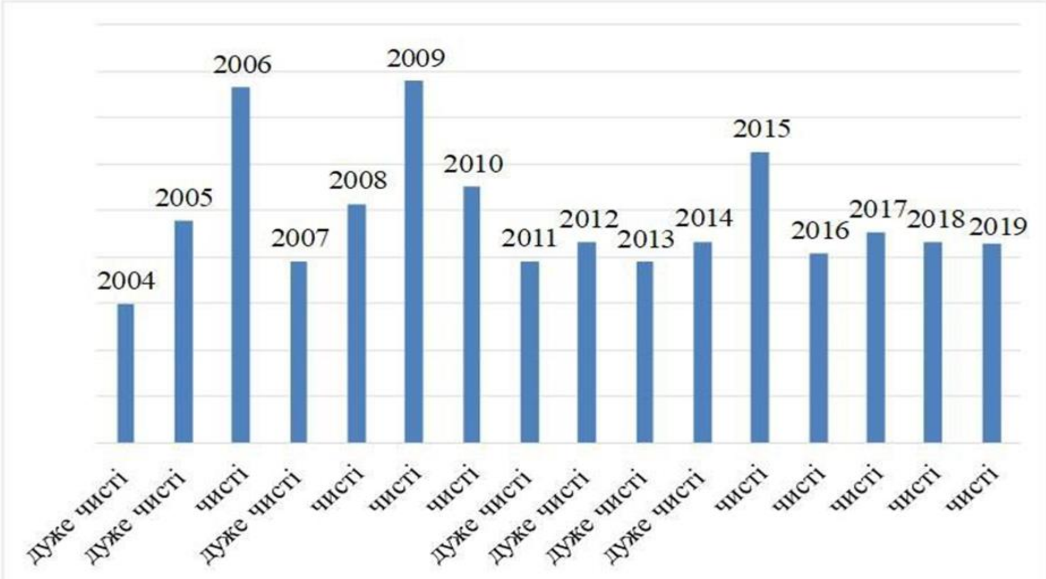
Pollution level	BSK5 concentration, mg/m^3	Ecological state of the water object
Very clear	0.5-1.0	Reversible stage changes
Clear	1.1-1.9	
Moderately polluted	2.0-2.9	Threshold stage
Polluted	3.0-3.9	Stage of irreversible changes
Dirty	4.0-10.0	

Using the monitoring data of the Desna River for the period from 2004 to 2019, we analyzed the ecological state of the waters of the river basin. We used the data of observations of hydrochemical indicators, which were carried out at 33 stations, starting from the Bilous station (Chernihiv) to the stream. Znamenky (Bili Berezky village, below the city, border with the Russian Federation) from 2004 to 2019 inclusive. Figure 1 shows the layout of hydrological posts and weather stations in the basin of the Desna River.

Thus, in 2004, 2005, 2007, 2011-2014, the waters of the Desna River were characterized by the "very clean" category, in 2006, 2008-2010, 2015-2019 – by the “clean” category. At the same time, the ecological state of a water object can be characterized as 41 stages of reversible changes. The water category changed almost every 2-3 years. Since 2015, the quality of water in terms of BSK5 content has not changed.

The results of the assessment of the level of pollution by the content of BSK5 are shown in Figure 1.

Figure 2. – Changes BSK5 near the waters of the river. Desna in 2004-2019



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Horenko Y. V.

ASSESSMENT OF THE IMPACT OF CAR TRANSPORT ON THE ATMOSPHERIC AIR IN THE LOCAL AREA OF THE CITY OF KHARKIV

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To assess the impact of motor vehicles on the atmospheric air of the main highway territory, a typical section of the urban territory in the agricultural zone of the city of Kharkiv was selected. The object of the study is the section of Zhuravlivskyi Uzviz Street, namely the section from the intersection of Shevchenko Street to the intersection of Pushkinska Street, which is located in the territory of the Kyivskyi district (Figure 1).

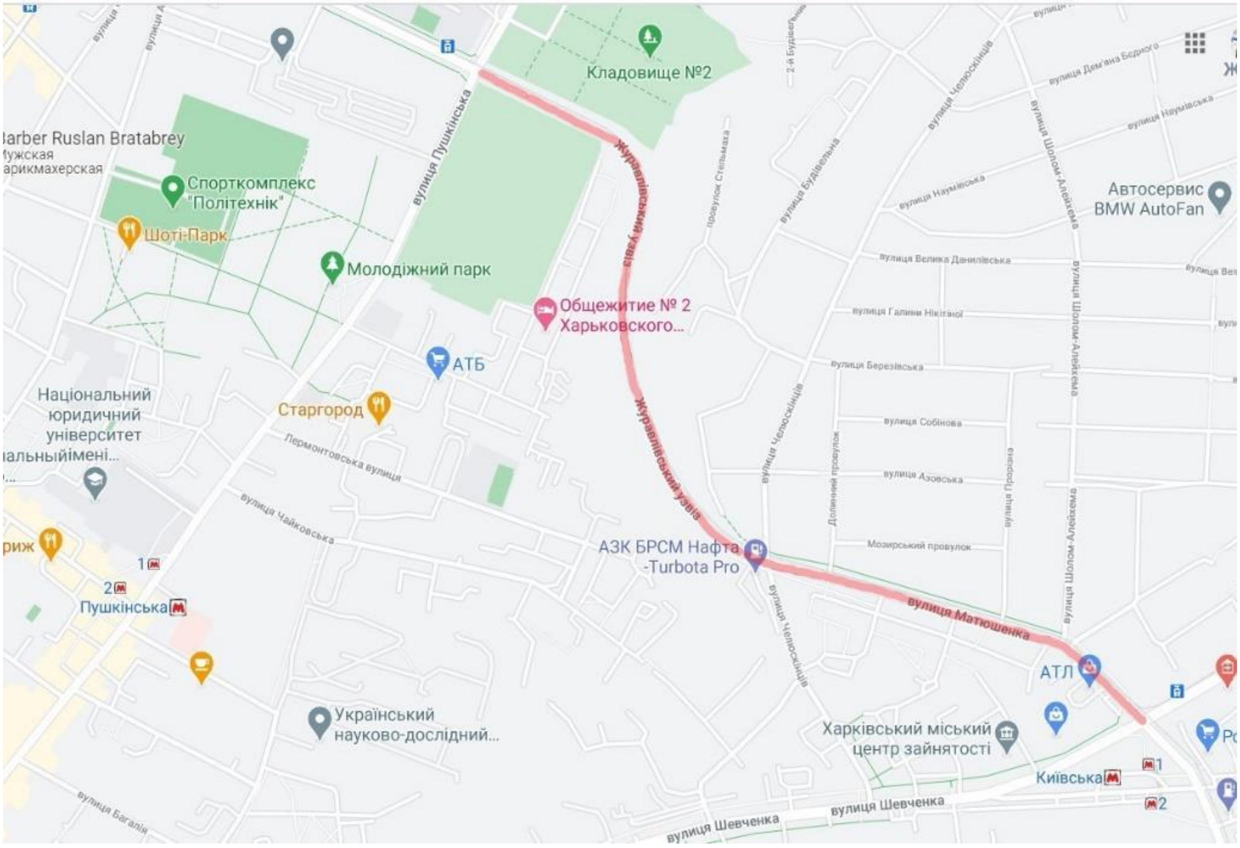

Figure 1. – Top view of the studied section of the street

Table 1. – Results of observations on the intensity and composition of the traffic flow

Street name		Average traffic intensity, auto/hour.					
St. Zhuravlivskyi Uzviz		light	light freight	medium freight	heavy cargo	buses, trams	in total
Research time	8.00 – 9.00 a.m.	3356	178	89	38	24	3685
	12.00 – 13.00 a.m.	3112	136	106	31	15	3400
	17.00 – 18.00 p.m.	2848	86	30	10	18	2992
	average value	3105	133	75	26	19	3359

The calculation of nitrogen dioxide emissions into the atmosphere during the traffic flow was carried out using the model of Gaussian distribution of impurities in the atmosphere. The results of calculations are given in Table 2.

For the street under study, field observations were carried out: the intensity of traffic during the rush hour. Observations of traffic flows for greater reliability of the results were carried out during 20 minutes of each time interval during peak hours, during 3 days on weekdays from approximately 8:00 to 9:00, from 12:00 to 13:00 and from 17:00 to 18:00. The results of the research are summarized in Table 1.

Table 2. – Results of calculations of NO_2 concentration in the surface layer of atmospheric air

Distance from the road, m	The results of calculating the concentration of NO_2 in the surface layer of atmospheric air at different sections of the road, mg/m^3	
	Rise	Flat road
10	0.139	0.020
20	0.068	0.009
40	0.045	0.006

The analysis of the data shows that under the given conditions, when vehicles are moving uphill, the concentration of nitrogen oxides in the surface air layer at a distance of 10 m from the road exceeds the maximum permissible concentration (0.04 mg / m^3) by 3.5 times, at a distance of 20 m – 1.7 times, at a distance of 40 m – 1.12 times. At such concentrations there is a danger of harm to human health.

The paper proposes to install road curbs on both sides of the carriageway of Zhuravlivskyi Uzviz street with the following geometric parameters: length – 30 cm, width – 12 cm and height – 35 cm.

The road curb is produced using the vibro-pressing technique. The raw material is a wet mixture of cement, coarse sand and crushed stone [1]. It is proposed to use photocatalytic concrete, which is produced according to the technology according to which nanoparticles of the catalyst – titanium dioxide TiO_2 are added to the concrete recipe. Titanium dioxide accelerates the chemical reaction that occurs under the action of sunlight hitting the concrete surface – photocatalysis [2].

TiO_2 is very effective in reducing pollutants such as nitrogen oxides (NO_x), aromatics, ammonia and aldehydes. It is capable of absorbing NO_x on the surface, turning them into harmless ions and blocking them in the form of salts (nitrates).

Extensive research to date has clearly demonstrated the significant contribution of such innovative materials to improving air quality, reducing nitrogen oxide concentrations by up to 60% in some local weather conditions.

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Lebed O. E.

ENSURING ENVIRONMENTAL SUSTAINABILITY OF CITIES IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT OF ROAD AND TRANSPORT INFRASTRUCTURE

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Among the global challenges currently facing humanity, one of the most urgent is ensuring the sustainable development of society in a global context according to the Sustainable Development Goals. They are a kind of call to action aimed at improving well-being and protecting the planet. At the same time, states recognize that measures to eliminate poverty must be taken in parallel with efforts to increase economic growth and solve a number of issues in the field of education, health care, social protection and employment, as well as combating climate change and environmental protection.

The analysis of global environmental problems showed that the problem of urbanization is very acute for the world community. According to forecasts, by 2030, more than 60% of the world's population will live in cities, which makes the need to develop effective measures for the implementation of Goal 11 “Sustainable cities and settlements” as urgent as possible. This problem is relevant for most cities of Ukraine.

In this paper, an attempt was made to identify the criteria of sustainable development of urban areas in the transport context. Based on the analysis of literary sources and the world experience of implementing such activities, the following criteria were selected:

The first is the optimization of the city’s road and transport infrastructure by implementing the standards of “green” construction of the street and road network;

The second is the development of a bicycle transport network based on an assessment of its environmental efficiency.

The state has not developed a purposeful comprehensive strategy for the sustainable development of cities and settlements, being a component of the national document “Sustainable Development Strategy of Ukraine until 2030”. The conducted analysis showed that the key criterion for ensuring the sustainable, multi-vector and balanced development of urban areas is the sustainable development and operation of their street and road network in accordance with the criteria of “green” construction.

In recent years, “green” construction, which is implemented in the context of sustainable urban development, has become more and more relevant.

The main task of “green” construction is the greening of design and construction technologies, which allows to significantly reduce operating costs, promotes the introduction of innovative technologies and encourages the search for non-standard solutions.

To unify the requirements for “green” construction, “green” standards were developed, containing specific requirements (criteria) for the construction of buildings, structures, transport infrastructure objects and a rating system for their performance.

In the framework of the complex sustainable development of the transport infrastructure of urban areas, an important factor is the development of bicycle traffic. This contributes to the redistribution of passenger and transport flows, the reduction of operating costs, the reduction of exhaust gas emissions and the improvement of the acoustic climate, as well as the general improvement of physical fitness and the strengthening of the population's health.

The key criterion for the possibility of mass development of cycling in cities is the formation of an optimal bicycle transport network, which ensures safe, comfortable and encouraged use of bicycle transport as an alternative to car trips.

In the future, the implementation of such an approach is expected to reduce the man-made load generated by the street and road network. In order to detail the practical approach to the implementation of the principle of sustainable or "green" construction and climate-oriented approach, the paper proposed a criterion for the ecological efficiency of the development of the city's bicycle transport network, based on the substitution of motor vehicle work for bicycle transport and the subsequent reduction of fuel consumption, emission of pollutants, acoustic load and general impact on climate change.

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ANTHROPOGENIC POLLUTION OF WATER BODIES OF UKRAINE

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Anthropogenic or artificial pollution is the impact on the environment caused by human activity and the global economy. Substances that pollute the environment can be solid (industrial dust), liquid (wastewater) and gaseous (industrial gas emissions) and have a harmful effect directly, after chemical transformations, or together with other substances.

Water pollution - saturation of waters, watercourses and reservoirs with substances in such quantities or combinations that deteriorate the quality of water and cause adverse consequences, as well as the ingress of various dirt into the waters of rivers, lakes, and underground waters [1].

Sometimes it occurs when pollutants enter the water directly or indirectly in the absence of measures to clean and remove harmful substances.

Water pollution (in hydrochemistry) is an excess of the concentration of chemical substances or the values of indicators of physical properties of water in water bodies above the maximum permissible concentrations (MPC), which causes a violation of water quality standards [2, 27].

A pollutant is any chemical substance, heat or biological species that, as a result of human economic activity, enters a water body or occurs in it in quantities that exceed natural limit fluctuations or the average natural background.

A pollutant or source of pollution is an object that introduces chemicals, microorganisms or heat into natural waters, which leads to deterioration of water quality. The term “pollutant” cannot be used instead of the term "polluting substance"[4, 56].

Sources of water pollution are classified according to different characteristics:

– by origin — sources of pollution are divided into anthropogenic (industrial, residential and communal, agricultural, transport, etc.) and natural (atmospheric, hydrospheric, lithospheric);

– by localization — they can be point, linear, planar;

– by the duration of the impact — they can be permanent, periodic and episodic;

– by type of carrier of polluting components — they can be divided into sewage, discharge (irrigation and drainage), infiltration and underground waters, surface run off waters and atmospheric precipitation.

The main source of natural water pollution is waste water (industrial, household, agricultural), among which industrial waste waters tend out in terms of toxicity [5, 17].

According to the types of water pollution, the following types are distinguished:

– chemical (inorganic and organic);

– physical (thermal, radiation);

– -biological (microorganisms, helminthological, hydro floral).

To ensure the necessary state of water in natural water bodies, it is necessary to develop and implement water protection measures.

The central water supply of the country's population covers about 70% of Ukrainians. The needs of 20% of them are provided by underground fresh water, the other 80% drink from surface water bodies such as the Dnipro and the Desna rivers. The majority of river basins and reservoirs, from which the population's water needs are mainly provided, cannot be considered ecologically safe. In some cities and even some regions, the deviation in water quality from the norm reaches 70–80%.

It can be stated that practically all water resources have been intensively polluted in recent years due to the increase in the influence of anthropogenic factors: unsystematic economic activity with violation of the permissible limits of land development, excessive intensification of the use of natural resources, siltation, pollution and overgrowth of rivers, as well as non-compliance with the regime of limited management on coastal are as protective lanes. First of all, water resources suffer from pollution by industrial and municipal effluents, which contain heavy metals, organic and bacteriological pollutants.

In 2017, the Government made a decision to introduce accounting for surface water bodies in Ukraine. Today, you can find out about the state of rivers or other bodies of water using the "Clean Water" interactive map [3].

It allows you to choose a specific river basin and assess the water quality in it. The feature of the tool is that the enterprises that pollute rivers in each region the most are marked on the map. The user can find out exactly how much polluted water is discharged into rivers by each specific enterprise.

Experts believe that, first of all, in order to improve the condition of water bodies, it is necessary to ensure an optimal combination of forest plantations and meadows around water bodies, to implement a set of measures to stop the discharge of untreated sewage into them, renaturalization of draining flood plains, reclamation of disturbed lands, as well as to monitor the condition hydrotechnical structures on rivers, processing of banks, which leads to shallowing and siltation of rivers.

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Mineieva V. S.

INDICATORS OF PETROLEUM PRODUCT EMISSIONS CREATED BY MOTOR TRANSPORT ON ROADSIDE SPACE

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Among the environments of the roadside space, which as a result of the operation of the road become objects of ingredient pollution, the soil is the most conservative [1]. A special danger for the fauna, flora and microflora of soil ecosystems in the roadside space is created by oil pollution (NP) [1-3].

The purpose of the work was to quantify the flow of NP in the roadside space based on calculations and experimental determination on a specific section of the highway.

The object of the study was the roadside space of the highway in the village of Circuses of the Kharkiv region. The calculation of the intensity of the traffic flow was carried out according to the recommendations. Calculations of the flow of petroleum products from the highway and the concentration of petroleum products in the surface layer of the soil of the roadside space at different distances from the highway were carried out according to the formulas presented in the scientific and technical literature, taking into account the absence of a curb on the highway section and the peculiarities of defining the NP [1-3].

Experimentally, the kinetic characteristics of NP emission reaching the soil surface in the territories adjacent to the studied highway were quantitatively assessed when determining the dynamics of NP accumulation by the snow cover on a certain area (0.01 m2) of these territories. Determination of NP concentration in melted snow was performed after extraction with chloroform.

The results of calculations of the NP flow and their concentration in roadside soils, as well as the data of experimental studies of the NP flow are presented in the table. As can be seen, directly near the road, the concentration of NPs in the surface layer of the soil exceeded the normative level (200 mg/kg) by almost 5 times, and at a distance of 60 m, the concentration of NPs in the soil reached practically normative values. The NP flow determined experimentally practically coincided with the NP flow determined by calculation.

Table 1. – Calculation of the oil flow from the highway and the concentration of petroleum products in the surface layer of the soil of the roadside space

Definition	Indicator	Distance from the highway, m	
		1	60
Calculated	Oil products flow, mg$(m^2 \cdot day)^{-1}$	7.4	~ 0
	The concentration of NP in the surface layer is reasonable, mg/kg	1084	250
Experimental	petroleum products flow, mg $(m^2 \cdot day)$-^{1}	7.6	Not determined.

Based on the determination of the intensity of the traffic flow in the settlement, the calculations of the flow of NP to the roadside areas and the concentration of NP in the surface layer of the soil of the roadside areas were carried out.

The calculated data on the flow of NP to the roadside area practically confirmed the data of the experimental assessment of this flow.

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Parfeniuk O. S.

U.S. ENVIRONMENTAL PROBLEMS AND WAYS TO SOLVE THEM

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America is a country with a combined income of a quarter of the world's total. The United States, occupying most of the mainland of North America, is a state whose geographical position is advantageous in relation to other countries.

The United States ranks fourth among the states with the largest area. There are several climatic zones on the territory of the United States: subtropics, tropics, semi-deserts, as well as the arctic in the north.

US resources

Land, fresh water sources, forests, and mineral deposits make up America’s natural resources. Fertile chernozems, temperate climate, availability of fresh water, extensive transport network contribute to the development of the agricultural sector. Its products not only meet the country's needs for food, but are also actively exported.

The chernozem zone in the center of the country is reserved for the cultivation of wheat, corn, barley, sorghum, and rice. For animal husbandry, nature has provided an extensive fodder base, which makes it possible to grow up to 100 million head of cattle, 55 million pigs.

Major US Environmental Issues

A high level of industrial production leads to environmental pollution, the rate of which increases with the increase in production volumes. The main environmental problems in the United States can be summarized as a list:

– air pollution;
– deterioration of water quality;
– increase in the volume of municipal solid waste;
– enhancement of the greenhouse effect.

The listed aspects are the result of human intervention in the Earth's ecosystem. They worsen the quality of life, lead to global negative consequences on a planetary scale.

Air pollution. Huge amounts of toxic compounds are released into the atmosphere. There are norms for the content of elements harmful to human health in them, but it is not always possible to purify air waste from production to the desired concentration. A person is forced to breathe air with an admixture of sulfur, lead, mercury, chromium, zinc, which contributes to the development of diseases.

Water pollution. The issue of the ecology of water resources is acute. The annual consumption of fresh water is about 0.5 trillion. cubic meters, the largest consumers are industry, agriculture and utilities. As a result of their activities, 120 thousand km of waterways in North America are polluted. There is also a deterioration in the ecology of the marine environment, which suffers due to oil and gas production in the shelf zone.

Around large factories that release toxins, living organisms die in water bodies. The degree of damage is so high that some species have disappeared.

Energy and greenhouse gases. About 2.5 thousand thermal power plants, more than 250 oil refineries, 150 steel mills and a hundred pulp mills operate in the United States, which carry out massive emissions. The main pollutants are thermal energy and road transport. The country leads in the number of nuclear power plants in the world and there have even been cases of environmental pollution. The greatest consequences were caused by the incident at the Three Mile Island nuclear power plant in 1979. Releases of radioactive materials fell outside the reactor, and the accident itself was rated at level 5 on the INES scale.

Increasing waste. Not only industrial enterprises, but also the population increases the volume of garbage, which today, in the days of the existence of a consumer society, has become a national disaster. Major metropolitan areas dump thousands of tons of solid waste to landfills every day. Only a small part of them is recycled.

Ways to solve environmental problems in the United States.

The United States is trying to prevent the deterioration of the environment and improve its current situation. To this end, a number of measures have been taken:

Rapid industrial development in the second half of the 20th century led to environmental problems in the United States. Many plants and factories were built, as a result of which the level of air and water pollution increased. Against this background, the US government was the first in the world to develop and establish environmentally sound emission standards.To reduce emissions into the atmosphere and water bodies, scientists propose to switch to the use of alternative energy sources. They want to replace coal, oil, gas. This method would significantly reduce the concentration of harmful compounds, but so far these sources are not able to meet the energy needs of industry and the population.

In the 1990s, the American government passed the Clean Air Act, which sets limits on the concentration of environmental pollutants. The effect of the law ensured the reduction of harmful emissions. To reduce the amount of garbage, a recycling system is being introduced, for which separate collection is practiced, collection points are organized, and processing enterprises are opened.

Ecology in the United States is of great importance. The operation of the law on the cleanliness of the natural environment, the introduction of new methods of waste processing, punishment for violation of environmental laws - all this ensures the preservation of the environment.

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Prykhodko K. V.

INTEGRATION OF ENVIRONMENTAL SAFETY MANAGEMENT TOOLS FOR ROADSIDE ECOSYSTEMS

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The object of the research is the interaction of roads and the surrounding area. It is necessary to determine the possible negative impact through research and measurement from both sides. For this purpose, the most expedient multifactorial model of analysis of all defined measurements, which are necessary to determine the state of the environment from the point of view of environmental safety, is used.

The subject of research is air and earth. Analysis of the obtained values should be carried out in statics and dynamics to determine possible statistical outliers, local and global trends. The obtained data are necessary to determine the minimum, average and maximum value of all types of possible pollution with a certain duration.

The goals of the research are as follows:

1. to determine the type of measurements that should be calculated and the value of the calculated measurements for the uncontaminated area;
2. to research permissible and maximum permissible concentrations of pollutants;
3. to build a mathematical model for determining the time required to restore the permissible and maximum permissible concentration of pollutants for the object.

First, we must understand all the possible types of points that will be considered in determining the directions of pollutants. There are only three objects that will interact with each other: the object of research, the static pollutant, and the dynamic pollutant. There are also two different types of static pollutant: static permanent pollutant and static transient pollutant. Examples of point types in Table 1.

Each point type can increase the pollutant concentration of any other point type.

Aggregate mathematical models for determining the duration of obtaining permissible and maximum permissible concentration should handle the weight of the pollutant and time.

The software solution for displaying the results should support the following operations:

1. collection of data on the actual concentration of pollutants in the air;
2. realization of the calculation;
3. display results.

Table 1. – Examples of point types

Point type	Examples
Object of research	Human
Static transient pollutant	Earth, trees

Static permanent pollutant	Factory
Dynamic transient pollutant	Dog, cat
Dynamic pollutant	Car, train

Each obtained value must be processed in the way described in formula 1 to calculate S – the amount of pollutant in $\frac{mg}{m^3}$.

Formula 1 – Calculation of pollution

$$k_i = \frac{C}{MPC}$$

$$K_i^{(3)} = 3^n k_i^{(1)}, n = 2{,}89\left|\ln\left(k_i^{(1)}\right)\right|$$

$$K_i^{(3)} = \left(\frac{3}{2}\right)^n k_i^{(2)}, n = 1{,}55\left|\ln\left(k_i^{(2)}\right)\right|$$

$$K_i^{(3)} = \left(\frac{3}{4}\right)^n k_i^{(4)}, n = 1{,}05\left|\ln\left(k_i^{(4)}\right)\right|$$

$$P_i = \sqrt{\sum_{i=1}^{m} K_i^2}\ ; \quad t_i = \frac{T_i}{24}\ ; \quad S = \sum_{i=1}^{n} P_i t_i .$$

C – the concentration of the polluting substance, MPC – the maximum permissible concentration, k_i – the value of the multiple of exceeding the MPC, respectively, for substances of the 1st, 2nd and 4th classes of danger, $K_i^{(3)}$ – the multiple of exceeding the MPC of substances of different classes reduced to the 3rd danger class, n – number of location, P_i – index of air pollution (level of chemical air pollution), m – number of places of stay, t_i – duration of exposure in fractions of a day, T_i – average duration of human stay in certain conditions.

The calculation algorithm is not too complicated, but it needs to be done very often with great accuracy. The results of the program processing should be visualized by showing a map with colored zones of pollution danger. Usually, red zones are more dangerous, and green zones are less dangerous.

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Vasyliev V. Y.

GLOBAL HARM FROM CAR EXHAUST GASES AND METHODS FOR SOLVING THIS PROBLEM

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Every day the number of motor vehicles is increasing, cars are created with different systems of fuel supply and processing of the fuel mixture, but toxic substances that are formed in the chemical process pollute the atmosphere, destroying the ozone layer of our planet, and pose a threat to human health. This is how different countries set their standards for emissions of harmful substances into the environment and create methods to reduce the harmful impact on the environment, so I suggest that we review this topic together to familiarize ourselves with the real problems caused by harmful emissions from motor vehicles and methods of solving them.

The influence of exhaust gases on the human body. Of course, the composition of exhaust gases depends on the quality of fuel and the type of engine, and the composition of exhaust gases can consist of completely harmless substances. At the same time, the differences will be only in the percentage ratio of fairly toxic elements. Yes, the composition of automobile exhaust gases consists of nitrogen, oxygen, water vapor, carbon dioxide, which are not toxic. However, the composition of exhaust gases includes such elements as carbon monoxide, hydrocarbons, aldehydes, sulfur dioxide, soot and benzapyrene, which in high concentrations cause irritation of the mucous membranes of the eyes, exacerbation of chronic diseases of the respiratory system, the appearance of tumors in the body, nausea, fainting and even death.

The impact of exhaust gases on the environment. An increase in the content of carbon dioxide on a global scale leads to an increase in gas insulation throughout the world, which causes global warming. This leads to a number of catastrophic events, such as a change in the average level of the oceans, a change in climatic conditions and precipitation regime. When inhaling a higher concentration of CO_2, people and animals can also experience shortness of breath. How to protect yourself from harmful effects? In the 70s of the last century, this problem caused world concern.

As a result, automotive catalysts based on solid platinum and other metals and particulate filters, which are an integral part of the car design, were developed. Thus, the catalyst became part of the car's exhaust system and is able to absorb fuel combustion products emitted by the car's engine, and release water vapor and oxygen into the atmosphere at the exit. Solution of the problem at the level of legislation. At the same time as car manufacturers, some European countries, without waiting for a joint decision of the European Union, have set their own dates for abandoning internal combustion engines.

Norway, which is not part of the EU, in the car market of which already about 80% of sales are electric cars, will introduce a ban on new passenger cars with internal combustion engines in 2025. From 2030 EU member states Denmark, Ireland, the Netherlands, Slovenia and Sweden, as well as Iceland, will ban the sale of such cars. Cars and motorcycles with gasoline and diesel engines will be banned in the capital of the Netherlands from 2030. Such a decision was made by the authorities of Amsterdam on Thursday, May 2 with the aim of keeping the air clean in the city. Already in October 2017 the Dutch government approved a plan to prevent new cars running on diesel and gasoline from 2030, and from 2020, diesel engines manufactured before 2005 will be banned. Despite the fact that many residents of the country widely use bicycles, the air in the Netherlands is more polluted than European standards suggest, primarily due to the busy traffic in Amsterdam and Rotterdam.

The Ministry of Health in The Hague warned that emissions of nitrogen dioxide and particulate matter at current levels could lead to respiratory diseases, and long-term exposure would reduce life expectancy by one year. Along with the ban on gasoline and diesel cars, in the Netherlands it is planned to replace them with cars with electric and hydrogen engines. My view, experience and conclusion on this topic Traveling around the world, I noticed that in other countries, much attention is paid to controlling the emissions of harmful substances by cars. If we talk about Turkey, which pleasantly surprised me, despite the fact that Turkey has a large number of old cars from the 70s. but even at a temperature of +40, standing in a traffic jam does not make one feel stupid from motor vehicle exhaust.

In turn, in Ukraine, most drivers cut out catalytic converters that have exhausted their resource. And new catalysts are very expensive, and not everyone has the opportunity to replace them, why are they cut out because the gas throughput decreases, the car loses significant engine power and traction during acceleration, so people say that the catalytic converter kills the engine, but few people say that such methods of self-treatment reduce people's lives by one year in large cities, and kill the environment. In 2011 mandatory technical inspection of cars was canceled in Ukraine, due to the fact that the system was incomplete and not transparent. No one even paid attention to such things as emissions into the atmosphere hey But recently there was news that technical control of cars will be introduced again in Ukraine from January 1, 2023 and it seems to me that it will be a different system than in the past, since the mandatory procedure for accepting us into European membership is compliance with legislative norms which will be given to us.

And according to these norms, the correction of the fuel mixture and ignition moments will be controlled. Oxygen sensors to work, instead of standing dummies in their places and will control unscrupulous drivers who cut out catalysts in their cars. Few people know the real harm not only from exhaust gases, but also from automobile mixtures of antifreeze, oil, brake fluids and other fluids. Such a liquid as antifreeze is very toxic, and even when the liquid is replaced, when it gets on the skin through the microfibers of the skin, the toxins are absorbed into the blood and enter the lymphatic system and reduce immunity, cause headaches, vapors mixed with the fuel mixture settle in the lungs, people gradually develop cancer lungs, tumors. But there is good news, the situation with emissions in our country will be resolved for the benefit of society and nature.

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Vorobyov M. S.

TOPOGRAPHIC MAPS AND THEIR CHARACTERISTICS

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Topographic maps are detailed general geographic maps, uniform in content, design and mathematical basis, on which natural and socio-economic objects of the area are depicted with their inherent qualitative and quantitative characteristics and location features, without highlighting any specific elements among others. The degree of detailization depends solely on the scale of the map, the requirements for generalization and the peculiarities of the given territory.

The following topographic maps are distinguished in Ukraine:

1. topographic surveying (scale from 1: 1,000,000 to 1: 200,000);
2. topographic (from 1: 200,000 to 1: 5,000);

3. small-scale (1: 100,000),
4. medium-scale (1: 50,000, 1: 25,000),
5. large-scale (1: 10,000);
6. topographic plans (1: 5000, 1: 2000, 1: 1000, 1: 500).

Topographic maps are necessary for all stages of design and research work, which are carried out for topographic support of geological exploration, development of mineral deposits, hydropower, transport construction, etc. Large-scale topographic maps are used for detailed study of the area, orientation on it, accurate measurements and calculations. Medium-scale topographic maps are used for the preliminary design of railways and highways, conducting geological surveys, and preliminary calculations for the design of large structures. Small-scale topographic maps are used in solving research and applied tasks related to the use of natural resources, economic development of the territory, in the general design of large industrial complexes, navigation and other works.

Large-scale topographic maps are the most important material for geographical studies of the territory, because they contain a lot of information that is missing and cannot be obtained from literary and descriptive sources.

Topographic maps and plans are used to solve various economic tasks, study the area, orientation, and compile various thematic maps. Topographic maps make it possible to determine the qualitative and quantitative composition of terrain objects, their relative position and geographic coordinates, sizes, measure distances between objects, areas, directions, point heights, elevations, slopes.

According to regulatory documents, topographic maps in Ukraine must be created in a unified system of coordinates (ITRS) and elevations and according to unified and mutually agreed conventional signs and classifiers. Basic requirements for creating a topographic mass include:

1. The completeness and reliability of the display of the state of the area for the year of the creation of the map in conventional symbols approved at that time.

2. Accuracy, in accordance with the selected scale, rectangular and geographical coordinates, absolute and relative heights of objects on the terrain, their quantitative and qualitative characteristics for the purpose of carrying out cartometric works.

3. Compilation of map sheets by frames for all content elements between adjacent map sheets of the same scale.

4. Consistency in the main elements of the content between the sheets of maps of adjacent scales.

5. Ease of use (usability) and clarity of information presentation.

Delineation and nomenclature of a topographic map is drawing a cartographic grid and conventional markings. The trapezoidal distribution is based on a 1:1,000,000 scale map. Each sheet of the map depicts the Earth's surface in the form of a trapezoid, the sides of which are images of meridians and parallels of 4° in latitude and 6° in longitude, respectively. The nomenclature of the sheets of this map consists of a capital letter of the Latin alphabet – A, B, C, D, ..., Z, which denote the corresponding 4-degree latitude bands, that is belts counted from the equator to the poles, and the Arabic numerals 1, 2, 3, 4 , …, 60, which denote the numbers of the 6-degree vertical bands counted from west to east counterclockwise from the 180° meridian.

Topographic maps are created and issued according to a certain set of rules, uniform for all publishers in the country, which simplifies their understanding and use by different categories of users.

Most of the documentation was inherited from the Soviet system of documentation of the GUGK under the Council of Ministers of the USSR. The main requirements for topographic maps and plans are outlined in the following documents:

– Law of Ukraine “On topographic, geodetic and cartographic activities” 353-XIV, dated December 23, 1998;

– “Basic provisions for creating and updating topographic maps of scales 1:10000, 1:25000, 1:50000, 1:100000, 1:200000, 1:500000, 1:1000000”;

– “Classifier of information displayed on topographic maps of scales 1:10000, 1:25000, 1:50000, 1:100000, 1:200000, 1:500000, 1:1000000”;

– “Conventional signs for topographic maps on a scale of 1:10000”;

– “Conventional signs for topographic plans of scales 1:5000, 1:2000, 1:1000, 1:500”;

– “List of conventional abbreviations used in the compilation of topographic maps”.

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SOCIAL SCIENCES

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IMPORTANCE OF VOLUNTEERISM IN MODERN REALITY

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The modern rhythm of life rarely gives us a chance to relax and really enjoy the moment. We are constantly in a hurry, often without noticing the world around us. In our world there are so many activities that can even change our lives. One of such kinds of activity which helps to see the world in a new way, to be glad because we have, to appreciate nature and people close to us is volunteering.

Volunteering is a special type of charitable activity, because it requires a lot of donations from the person of her / his time and personal participation. Volunteerism will exist regardless of the political and economic situation in the country, which legislation is there in the state that regulates volunteer activities, which are the conditions for volunteers to work, public and business organizations. After all, volunteer groups, volunteer initiatives mostly arise spontaneously, following the call of the human soul, a great heart, a desire to express their support for actions, to provide assistance in difficult times.

Research on the social phenomenon of volunteerism is an interest for scientists all over the world. As a field of social and humanitarian knowledge it has begun to form in the beginning of XX century, and till this time remains an actual subject of modern scientific knowledge.

Volunteer activity has been and remains a component of human civilization development at various stages of its historical progress. In world practice, volunteer activity is largely understood as voluntary assistance to an individual or group of people who do not bring any material or financial benefit. Voluntary actions can take any form. From the removal of common social conflicts to participation in overcoming global problems of society, its main idea is to strive for the helpful volunteers to improve the well-being of a certain community.

As a public movement of volunteerism emerged in the West, and the first volunteers were Samaritans who provided assistance to all who needed it. More certainly, we can talk about the phenomenon of volunteerism since the middle of the XIX century. 1859 is considered to be the year of the emergence of a volunteer movement in the world. It was during that period that Henri Duran, a well-known French journalist writer, was impressed by the consequences of the bloody battle at Solferino, proposed to create the Red cross, an organization that would work on volunteer facilities and provide first medical assistance to the wounded and the long-term.

Realizing the enormous role of volunteerism, the United Nations General Assembly in 1985 proposed to celebrate the International Volunteer Day annually on December. The UN is constantly urging the states to take measures to increase awareness of the important contribution of volunteer service, thus encouraging them to join in volunteer activities.

Today, volunteers from more than 100 countries are United into a global movement that is becoming more and more influential. Volunteering is widely practiced in all countries of the world from Asia to Europe and North America. For example, volunteering in the United States has deep and far-reaching roots. Almost every citizen of the United States has become a volunteer from time to time. Millions of Americans are ready to use their free time and abilities to benefit their community. Volunteerism is so widespread in the US that it can be observed every day in virtually every aspect of life.

The volunteer experience of young Americans increases their chances of joining prestigious educational institutions and receiving grants for training. Participation in volunteer movement is usually taken by whole families, which has a significant educational effect for children, ensuring participation of the next generations in voluntary initiatives. About 100 million Europeans participate in the volunteer movement, creating 5% of the GDP of the European Union. Many European countries have a tradition of volunteerism, mutual support and civic engagement. According to a study by the European Commission, the highest level of volunteer activity is observed in Austria, Sweden, the Netherlands and the UK, where more than 40% of adults are involved in volunteer activities. In these countries, the share of volunteer contributions to the national economy is 3-5% of GDP. However, in other European countries, volunteer movement is less developed, in particular in Italy, Bulgaria, Greece and Lithuania, volunteers make up less than 10% of the adult population. This inconsistency can be explained by historical circumstances of development or by the type of social security system in individual countries. In addition, the level of economic development of the country has a significant influence on the organization of volunteer activity.

The volunteer movement in Ukraine today is spoken with enthusiasm in many countries of the world, calling it a unique phenomenon. The blossoming of volunteer activity in our country was at the time of the revolution of dignity and the beginning of the war in Donbas. In an extremely difficult period, this movement United society, created an effective structure of public organizations, groups of people ready to take on the most urgent and painful problems of the state. Ukrainian volunteers and really differ markedly from others. We have experience of military volunteerism, which is rare for other countries. Today in every region, every city and almost every village of our country there is at least one group of volunteers, which shows that charity and charity remain the constant attributes of human life in modern social and cultural conditions.

There are many different types, forms and areas of volunteerism, and everyone can be a volunteer. This is one of the best things in volunteering, there are many ways for people to influence according to their interests and skills.

Main areas of volunteerism social protection: ecology, well-being, prevention of alcohol and drug dependence, promotion of healthy lifestyle, human rights activities, preservation of historical and cultural heritage, promotion of activities in the field of physical culture and mass sport, cooperation in the field of education, science, culture, art, education, spiritual development of the individual.

Taking into account the diversity of areas and activities and their relevance, volunteers learn new mechanisms and skills and establish new social ties. Volunteers work in state and non-state organizations, institutions, institutions providing social services to different categories of population, and require outside assistance. Children and young people are often the most socially unprotected strata of society, but they are not limited to the number of persons for volunteer care.

The main categories of people who volunteer to help are: elderly people, persons with disabilities, social and mental disorders, infected people, dependent on psychoactive substances, problem and disadvantaged families, working with children without parental care, unemployed and homeless people. Volunteers work on voluntary basis, but they get quite valuable things – new acquaintances, knowledge and life experience, which can be useful in different situations in the future.

The realities of the modern information world provide additional opportunities for volunteer work. Not all people can volunteer because of lack of time or limited physical capacity, and it is in such cases that the Internet becomes useful. In particular, through social networks, a person can volunteer online. Online volunteering is modern, accessible, large-scale and with every year becomes more and more urgent. The network creates new platforms for the realization of assistance to the needs, as well as communication creates new links between volunteers, public organizations and the state at the international level. Training courses, lectures, talks, seminars, trainings, that allows you to expand the concept of volunteerism online, share your work experience, organize your leisure activities together, help others, and thus realize your personal potential.

Summing up the results, we can say that volunteering is a very important component of our modern life. The creation of a volunteer movement is one of the signs of a conscious society, it is a measure of freedom, the desire for peace and security of citizens. Volunteer activities include a lot of opportunities that can be used for the benefit of the whole world.

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VOLUNTEERING AS A SYMBOL OF NATION'S UNITY

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Volunteering in modern Ukraine is an extremely important element of the rear. With the beginning of the war, volunteering became more widespread. Now volunteering surrounds us everywhere. I will tell you my opinion about this phenomenon in the modern world.

I got acquainted with volunteering before the war. I was a volunteer. I helped organize events. These events drew attention to environmental problems and poor treatment of animals. In general, I had an active public position. During this time, I got to know a lot of volunteers. All volunteers have one thing in common. They are ready to help anyone who needs it. I think being a volunteer is being an angel on earth. Volunteers help children, adults, animals, ecology, and society. There have always been volunteers.

There become more volunteers during the war. Volunteers help military personnel. They provide servicemen with water, food, clothing, housing, weapons, and basic necessities. Volunteers raise funds for large and small projects. Volunteers deliver essential products to the occupied territories.

Volunteers help people who have lost their homes. They help restore housing. Volunteers are looking for new housing for these people. Volunteers raise funds to rebuild the home. They provide furniture, clothing, utensils and basic necessities.

Volunteers help people who have gone abroad. Ukrainian volunteers help to find housing and work abroad. Ukrainians who know a foreign language conduct free courses for immigrants. Ukrainians who have gone abroad become volunteers. They help transfer clothes, food, even weapons from abroad (if they have special permissions).

Volunteers help the elderly. They bring food, water, and warm blankets to their homes. Sometimes volunteers help to find new temporary housing. These are usually places where elderly people are looked after by specialists and medical workers who can provide first aid.

Volunteers help children who have lost their parents. They contact the police. Volunteers provide temporary shelter for these children. They provide a safe place to live, clothes, food, water, sometimes even toys.

Volunteers help people whose relatives died during the war. They raise funds for them. Volunteers often provide psychologists to people who need them.

Volunteers help people who are in the occupied territories. They help establish a mobile connection. Volunteers deliver water, food and other basic necessities. Volunteers make it possible for these people to leave for safe territory.

Volunteers help animals left without owners. They find a new home for these animals. They provide them with shelter. They provide them with food and security. Volunteers make announcements about finding owners for dogs or cats on social networks.

The war took its toll on everyone. Volunteers helped me some months ago. For some time, the city where I live was in the occupied territory. At the long run, I and my family were forced to leave our home. Volunteers helped us. Volunteers helped to leave. Our relatives sheltered us. Volunteers helped with the necessary clothes. They created points where they gave out clothes, towels, and blankets for free. Volunteers gave out special boxes with essential items (toothbrush, paste, shower gel, shampoo, feminine hygiene products). They provided food if it was not possible to purchase (various canned goods, pasta, rice, tea, coffee, beans).

Volunteers are people who work voluntarily and without remuneration for the benefit of others. They support various actions, initiatives and non-profit organizations. They voluntarily invest their time.

We want to live in a successful country. And the country is defined by people. When everyone cares about their surroundings and solves the problems that bother them, the country develops. Volunteers are ordinary people who invest their time, talent or resources in implementing socially useful projects.

Everyone can do good deeds: children, adults, people with special needs, companies, agencies and even entire countries. Even one good deed can change the society, the country and the world for the better. Today, volunteer organizations exist in 80 countries of the world. About 110 million people annually participate in voluntary programs, where they help in the fields of education, health care, ecology, social protection and many others.

Each of us can join the Ukrainian volunteer movement now.

Young people now want to be volunteers, they want to help other people and their country. As a result, volunteering has become a very modern platform. You can participate in volunteer activities without leaving your home. Sites, platforms and other online resources bring together all volunteer opportunities in the country in one place. You can help and organize help in the areas that interest you (helping defenders, intellectual volunteering, culture and art, international volunteering, urban development, sports, education and science, volunteering at events, ecology and animal protection).

As a conclusion, I believe that now volunteering is fashionable and cool. Volunteers are people who are respected. This is amazing! Periods of significant development of the volunteer movement coincide with times of aggravation of crisis situations in society. This is how the Revolution of Dignity survived on volunteers, and this is how we are standing against Russia today. Those who care unite and help those who need it. As an example, I want to give my little friend who weaves bracelets from beads and donates all the money from the sale to charity funds. Perhaps her contribution will save the life of one more defender of our country. Don't underestimate small contributions.

During the war, Ukrainian volunteers have already become able to build processes. Therefore, if you are looking for ways to apply yourself at this time, contact local volunteers or representatives of an official organization and ask what kind of help is most needed right now. There are many opportunities for you: make a charitable financial contribution, give things that are currently needed by someone, provide your professional services, find shelter for refugees, become a blood donor, become “hands”, that is, physically join the organization, become a car volunteer: pick up people (like a taxi, but for free), transport loads of various formats (products, things, animals, join the IT army: DDoS enemy channels, sites, send them to spam, write complaints about them, create petitions, coordinate different processes, connecting people. Any help is important!

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VOLUNTEERING AS A STATE OF MIND

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Unfortunately, nowadays there are a lot of different troubles and problems in the modern world. In this essay I will talk about volunteer movement in Ukraine and not only.

At the moment often young and energetic people, who are full of energy, who have a very good hearts and who care about the problems of the world around them, go into volunteering.

Volunteering is not really a job and you don't get paid for it. I believe it is a state of mind.

To be a volunteer - means to give your personal time for certain social projects, the purpose of which is to help the people that need it most.

Nowadays this activity is absolutely voluntary and everyone can do it. Today it is a very developed activity and there are about one hundred million volunteers worldwide.

People who volunteer are usually very active, committed people who have a lot of energy.

Let’s talk a little bit about the benefits of volunteering. I have highlighted the following indicators:

The first, and not insignificant, is that volunteering greatly raises your self-esteem. That is, when you help the world around you and the people who need it, you become part of something great. And whatever it is, it makes you feel different, more confident.

The second thing I want to emphasize is that volunteering is also a kind of motivation. Each time you understand that you want to grow. You start to improve yourself and look for new projects that you want to get involved in.

Also, no less importantly, volunteering is a great opportunity to travel and thereby improve your foreign language skills or learn a new language.

Also, I would like to note that volunteer work is a good opportunity to meet new people. You meet new people and like-minded people, make new friends with whom you can share experiences and ideas and with whom you can implement new projects.

Most importantly, you are setting an example for the next generation. You show that everyone can volunteer, the main thing is the desire and aspiration.

The best reward for being a volunteer is not money but happy smiles of people whom you helped and who needed help. It is this feedback that makes us want to keep volunteering, keep going, keep developing, take part in new projects and come up with new ideas.

These happy faces are a great motivation for volunteers.

Unfortunately, these days we have quite a few people who need help and volunteers. There are so many children now who are sick with a life-threatening and sometimes even fatal disease, and what a joy it is to see the happy families of these children who have been helped by volunteers. It's just an unspeakable emotion.

And now I would like to pay attention to the volunteer movement in Ukraine.

Today the whole world is talking enthusiastically about the volunteer movement in Ukraine.

In fact, I believe that such an active volunteer movement is partly due to the events taking place at the Revolution of Dignity, as well as the events taking place in Donbass. In such difficult times, it is this movement that has united hundreds of thousands of people, volunteers, which has made our nation much stronger and added even more fighting spirit.

I would like to point out that many people now confuse the concepts of volunteering and charity. I would like to express my position on this matter.

I think they are different types of activities because for me volunteering is more than just helping people in need. Volunteering for me is taking part in the process (delivering food to those who need it, finding things for the army and for refugees, such as clothes, cars, houses etc.). Charity usually means helping financially, but without taking part in the process.

Every day in Ukraine more and more volunteer projects and organizations appear and this cannot but please the Ukrainian society.

We would also like to note that the emergence of the volunteer movement in Ukraine is one of the most significant results of the Revolution of Dignity. And after the annexation of Crimea and the outbreak of the war in Donbas, volunteering in Ukraine reached a fairly high level compared to previous years.

As I said above, most of the volunteers nowadays are students. I can say that I admire today's youth involved in volunteer activities. It's not for nothing they say, "young people are our future, the future of the country". I quite agree with it.

Involvement of students in volunteer projects gives them an opportunity to make a definite contribution to the solution of important social problems of society and nature.

But volunteering does not have any restrictions. Anyone, of any age, sex, nationality and race, can volunteer.

How do people become volunteers?

Someone looks for volunteer organisations on purpose, someone becomes a volunteer because of his or her certain abilities and talents. And maybe someone at one time or another was helped by volunteers, and so the person also decided to help people.

It is hard not to notice that since February 24th volunteering movement has intensified and become even more powerful.

In the spring of 2021, a special platform appeared which enables volunteers to respond quickly enough to people in need. As far as I know, the platform has more than 30,000 users and about 500,000 organisations.

I also want to note that in our modern world one can do volunteering both full time and remotely: translate texts, do website development, maintain social networks, do design, write articles and information for the media, do some online classes.

You can also join various charities.

In conclusion, I would like to say that I am very proud and admire people who are involved in volunteer movement.

People should develop spiritually, do good to people who need help, participate in various projects to help those who need it.

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VOLUNTEERS: HEROES OF THE MODERN WORLD

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Volunteer... One simple word, only 9 letters, but how much strength, courage and light it contains. Today, volunteering has become a very popular and very important activity for society. But who are the volunteers? I am of the opinion that volunteers are real heroes of the modern world who can do almost anything. My essay will first focus on explaining why volunteers are unique people who play an extremely important role in the modern world, and then finally understand why volunteering is a real social phenomenon in society.

First of all, I would like to point out that the volunteers have truly heroic qualities and characters. Volunteering is about strength and courage. It is about determination and dedication. It is about boundless care, faith and love. To be a volunteer is to do things that seem difficult or even impossible. It is giving everything to help. It is overcoming any difficulties and not losing faith. Volunteers are always ready for self-sacrifice, they are generous and responsive. Neither fear, nor fatigue, nor pain will stop them. These people have moral and physical strength not only for themselves, but also for other people or animals. They have a kind heart and a sincere soul. In other words, these people are filled with such sincere love for others which is able to save and can regain strength and faith in a better future. Volunteers do work according to the calling of their soul, ready to help anyone who needs it. They are often the first to act in crisis situations, without waiting for official decisions, without advertising their affairs and reporting only to their own conscience. Volunteers support, warm, feed, and are the first to give encouragement and hope to those who are left alone in darkness and hopelessness. With their actions, they prove that they deserve to be called heroes.

The second and no less important thing is that volunteers do not seek financial gain, recognition or popularity at all. They do not receive a salary or any material benefit, they do everything for free. These people are ready to work 24 hours a day, 7 days a week. These are individuals who are willing to sacrifice their own interests, time, vacation, etc. for the sake of others. Often their names remain unknown, nevertheless, the results of their work often save lives or sometimes even change the course of events. And the best reward for volunteers is not money, but the happy look of those whom they managed to help. This is because their main goal is to improve the quality of life, economic and social development. These are really unique people to me, because, unfortunately, few people are able to make sacrifices and give everything to help others.

Very significant is the fact that thanks to such wonderful people, the world has hope, and it is gradually changing, becoming kinder and more merciful which is also very important. The modern world is full of unhappiness and imperfections. There are so many people everywhere who need support. Fortunately, there are still people in our world who are ready to help not with words, but with real actions. Their motivation is to help others, to make this world a little bit better. Volunteers are just like angels of all times. They do good and perform earthly miracles. Their big and small deeds are full of nobility and often inspire others. Their work revives faith in humanity and encourages to become better. Gradually, more and more people discover in themselves the amazing qualities of mercy, patience and fearlessness. At first, they just worry, then they take a step of kindness, then another step, and then they start regularly doing good deeds without asking for anything in return. In this way, goodness and humanity spread throughout the world, and life improves. Volunteers only go forward and lead the world with them to a better future. Only truly heroic individuals can do this.

I can give many examples of volunteerism and heroic actions of volunteers in modern times. In today's difficult living conditions, especially in recent years, volunteers are constantly trying to provide support and care for people, animals, and the environment. They do everything they can to ensure and maintain safety, comfort, peace, etc. For example, the coronavirus pandemic, which covered the whole world and significantly complicated life, became a rather difficult test for volunteers. Against the background of all the suffering and anxiety caused by the pandemic, volunteers around the world have shown a lot of courage and resilience, helping the most vulnerable social groups. Despite the danger and fatigue, these brave people did everything they could, from providing people with essentials during the quarantine to helping the elderly and confused to protect themselves. And it had results. Volunteers are becoming heroes of the coronavirus pandemic. Thanks to them, it was much easier for people to follow the restrictions. The volunteers provided the necessary material and psychological support, which made it possible to save the health and lives of many people.

To illustrate the heroism of volunteers, I can also mention the volunteering of Ukrainians during the war with the Russian aggressor. I am at a loss for words to describe how strong, courageous and caring our volunteers are today. The Russian invasion changed the lives of millions of Ukrainians. People lost their homes, relatives and friends, became forced migrants. Fortunately, there are heroes among us who help every day. Along with the terrible stories about the crimes of the occupiers, there are stories about incredible heroism and goodness in the war. Since the first days of the war, volunteers have been closed to people. They help soldiers, civilians, and animals. Ukrainian volunteers are ready to go under fire, be out of touch and away from safety in order to save lives. During the shelling, volunteers rescued people and animals from the destroyed cities; despite the shelling, they brought necessary things to the military, collected the necessary money and humanitarian aid in a few hours. It is incredibly! Ukrainian volunteers have become an example for many adults and children from all over the world. I am proud that I live in a country with such heroic people who are trying to change the world with their good deeds. I thank them for their work, inspiration, patience and courage. For me, volunteers are forever heroes and true patriots, great people who are always ready to help. Thanks to them, we believe in unity and accelerate the victory of Ukraine.

In conclusion, I want to say that volunteering today is really a social phenomenon. It is not just a hobby or a whim, but an integral part of life and worldview. Not many people are able to sacrifice themselves, their interests and time to help others. Regardless of any difficulties, volunteers do their work step by step, do good deeds, support lives and change the world. With their courage and light of soul, they prove every day that they are worthy to be called real heroes of the modern world.

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VOLUNTEERING IN UKRAINE: ESSENTIAL FEATURES AND PROBLEMS

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Voluntary movement is essentially a part of every civilization and every society. A volunteer is a person who voluntarily carries out socially oriented non-commercial activities by providing volunteer assistance.

Voluntary organizations are key players in the economy in their own right as employers and service providers, increasing the country's overall economic output and reducing the burden on public spending. The sector also plays a key role in creating the conditions in which the economy can thrive by investing in people through education, training and improving people's employability in the labor market.

Volunteering makes a significant contribution to economies around the world. According to a study by the Johns Hopkins Center for Civil Society Research, in 2017, approximately 140 million people in 37 countries participated in volunteer work in the current year. If these 140 million volunteers were gathered together, it would be the ninth largest country in the world. These 140 million volunteers represent the equivalent of 20.8 million full-time jobs. Volunteers annually contribute about a billion dollars to the world economy.

However, these economic figures do not reflect the benefits of third parties – fellow citizens who may enjoy time being devoted to these people or causes they care about. These numbers don't even take into account the less tangible benefits that come from volunteering. The voluntary sector plays a key role in public life. Volunteering brings together people who would otherwise not be in contact with each other.

The social fabric can only be strengthened through practices that help overcome our socioeconomic differences. Such potential values that underlie social capital and combine the organizational life of the community, participation in public associations, participation in public affairs, informal sociability and social trust are taken into account here.

Therefore, it is important to highlight the social consequences of volunteering arising from all of the above. This is the strengthening of social ties; creating a strong, safe, cohesive community; strengthening of public activity; provision of public goods and services.

The peculiarity of the volunteer movement is that its large group is student youth. The participation of young people in the volunteer movement gives them the opportunity to make a personal contribution to the solution of social problems, to test their capabilities by participating in socially oriented projects and programs. Theoretical and practical training of young people for volunteer activities is carried out in volunteer schools.

Volunteers can also be considered non-governmental (public) organizations operating on a public basis. Among them are youth and scout organizations, youth political, sports or environmental organizations, organizations that are actively engaged in the development of settlements and solving specific problems of local self-government.

The year of 2014 was a landmark in the development of volunteerism in Ukraine, which gave a powerful impetus to the formation of a number of volunteer movements, which became a vivid example of the high level of civic consciousness of Ukrainians and their ability to effectively self-organize. Starting with the provision of assistance to the participants of the Revolution of Dignity, the volunteer movement grew into a complex and large-scale business – providing the Ukrainian army with everything it needs. During this period, a surge in state registration of public and charitable organizations was also observed. Since the fall of 2014, volunteers have started close cooperation with the Ministry of Defense of Ukraine, where a council of volunteers was created. Representatives of volunteer organizations are involved in material, food and medical supplies, some of them now work in the departments of the Ministry of Defense responsible for supplying the Armed Forces of Ukraine. And most importantly, the volunteers here show the effectiveness of their activities in comparison with the old army personnel.

At the moment, essential features of volunteer activity in Ukraine have been formed:

– high level of initiative and independence of activity of volunteer structures;

– formation of volunteer structures, as organizations of civil society, professionally meeting certain needs;

– the arrival of many volunteers not from civil society structures, but from various spheres of professional activity, in particular, IT technologies, entrepreneurship, etc.;

– a certain "forcedness" of volunteer initiatives is a consequence of insufficient effectiveness of state institutions or limited resources of the state.

So, the volunteer movement in Ukraine at the current stage is a manifestation of a certain maturity of civil society, complements the functions of state bodies, contributes to the stabilization and regulation of social relations in conditions of decentralization.

At the same time, volunteers and volunteer organizations face significant problems that can be grouped into the following areas:

1. Reduction in the amount of aid from the population of Ukraine, representatives of the diaspora and other benefactors.

2. Activities of pseudo-volunteers and cases of abuse by volunteers.

3. Lack of sufficient coordination of volunteers among themselves – lack of awareness or lack of coordination between the actions of individuals and structures performing similar tasks.

4. Lack of effective control over the further fate of property transferred by volunteers.

5. Poor communication between volunteers and society.

6. Decreased motivation, emotional burnout of volunteers. The important problem of volunteer exhaustion (physical, emotional, psychological) cannot be ignored.

7. Safety of volunteers. A separate problem is the safety of volunteers, primarily those who independently deliver aid to units that are on the front line.

8. Insufficient legislative regulation of volunteer activities. The current legal framework does not take reality into account in many ways, and from time to time it prevents volunteers from solving actual problems.

9. Conservatism of state structures. The traditional risk factor of reforms is system inertia and sabotage by officials.

Thus, the importance of such processes as volunteerism and self-organization of the population should not be underestimated. Civic activism as a trend manifests itself either in volunteering or in participation in various political and social projects, and, ultimately, contributes to the involvement of more and more broad sections of the population in the processes of self-organization at the local and national levels.

The key factor in the success of the volunteer movement and individual initiatives is a sensitive government that responds to pressure from the volunteer community and, under certain conditions, encourages volunteers to act.

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Zaika Yu. O.

SUPERHEROES IN MODERN SOCIETY

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What word comes to your mind first, when you think about volunteering? Is it help, work or maybe youth movement? As for me, volunteering is about super heroism. Because most often volunteers sacrifice something that is important for them in order to help others.

According to UN Volunteers (a division of the UN dedicated to volunteering and volunteering activities), approximately one of seven earthlings is a volunteer - almost a billion of them (970 million to be exact). Their work is the equivalent of 125 million full-time jobs or $1.348 trillion — 2.4% of the global economy. These are very different people with different professions, fortunes, interests and goals, but they all have a common value – they are not indifferent to what is happening around them.

In Ukraine, about 12% of the population joins the volunteer movement, and this number is gradually increasing. Volunteering does not have to take up all of your time to be rewarding. Volunteering is about finding something that resonates with your personality and fits into your life.

Today I am very proud to write about volunteering in Ukraine, because without such people the lives of Ukrainians will be much harder now. There will not be enough pages to describe the contribution that Ukrainians make on the volunteer front every day. For me, Ukrainian volunteering is a unique phenomenon, so I want to tell to the whole world about it.

Today, many countries in the world are talking about the volunteer movement in Ukraine with admiration, calling this phenomenon, like me, unique. The heyday of volunteering in our country came at the time of the Revolution of Dignity and the beginning of the war in Donbas. In an extremely difficult period this movement united society and created an effective structure of public organizations, groups of people, who are ready to take on the solution of the most urgent and painful problems of the state. Such people are called superheroes.

Probably, the most significant result of the Revolution of Dignity, in addition to the Ukrainians’ awareness of the need to build a national state, was the emergence of the volunteer movement which an important component of civil society and the main driving force behind the reform of the country; and Ukrainians continue to do it every day. In today’s realities, volunteering is quite relevant, because each of us defends our front and it doesn't matter if you make a donation today or feed the displaced people in a special center. There is a currently popular joke, “If you tell the Ukrainians that a nuclear warhead is necessary for the victory, it will not only be collected in two hours, but volunteers will also bring it. With tea to spare.”

Volunteering is not only helping those who are near, but also those who are far away. At the moment, our soldiers feel quite a lot of support from society through our donations, purchased bulletproof vests, self-made candles for heating, and so on. There is a quote from an interview given to journalists in one of the Ukrainian publications by the defender of Donetsk airport, Dmytro, in 2014: “Our group was held at the airport by only volunteers. They could not break into the airport itself, but they brought aid to the Ukrainian checkpoint in Pisky. They brought food, hygiene items, clothes and shoes, thermal imaging cameras, scopes and other equipment. All this was given to us by ordinary Ukrainians. The state did not give anything except for automatic rifles and cartridges. There were also bulletproof vests, but they were very bad. The volunteers brought us normal ones – the 4th class of protection. We knew that we were remembered, we felt the support of the people.” I think, these words are more important than ordinary “thank you”.

But, unfortunately, not everyone is making his contribution to defending the dignity of our country now. But I want to assure you that it is not difficult at all and definitely worth the result. As for me, I had some volunteering experience. In my hometown Kakhovka, Kherson region, which is occupied by Russia, I participated in volunteer activities every year while I was in high school. We had an annual running marathon around our town where we helped to organize a process of preparing and holding it. In addition, I with my classmates raised money for the animal shelter by selling sewn by hand animal figures made of felt. Now I live in Kryvyi Rig; and there as well are opportunities to help our soldiers now. Everyone can donate blood for our defenders, I think it is the least we can do for those who give their lives for our every day.

But that is not all. I have a cat, who likes cat patties, and they are packaged in iron cans. Volunteers of Kryvyi Rig developed such an initiative to transform any iron cans into candles for our soldiers, because the cold is coming; and Ukraine, unfortunately, even with the financial help of other countries, cannot provide all our defenders with warm winter clothes. So, I think my arguments were convincing in favor of the fact that anyone who wants can volunteer.

As we all know, nothing is perfect, so what is missing for the further development of volunteering in Ukraine? An important thing that is missing for the development of volunteerism is success stories, but not of specific people. I mean now success stories of certain directions, models or institutions. They should be made simple, so that as many people as possible can understand them. Another problem is people who want to join volunteering and do not always have the tools to do so. For example, a person comes to the organization and offers help. It is good, if they honestly tell them that there is no way to involve them yet. And it is worse, when a person, who wants to do something real is given, conditionally speaking, to sort pieces of paper, so people quickly become disappointed, although perhaps the act of sorting pieces of paper can help in some situation.

All things considered, volunteering in Ukraine is more developed sphere than it was before, but there are still ways in which we can improve it. The main thing is that volunteering is very diverse and it is not limited to, for example, helping the military or projects in education and medicine. There are actually many more areas of work and the main aim is to show people that they can find their own place or even their vocation. Nowadays, volunteering is not just help, but a demonstration to the whole world of the Ukrainian unity on the way to our victory. Using my example, I want to show that such small things, as collecting iron cans can help a lot to save lives. Just search for your own way or find a trend where you can become useful. Do not forget that everyone can become a superhero!

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ДЛЯ НОТАТОК

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Збірник наукових праць

Випуск 15
Частина 1

АРХІТЕКТУРА ТА БУДІВНИЦТВО
ГУМАНІТАРНІ НАУКИ
ІНФОРМАЦІЙНІ ТЕХНОЛОГІЇ
ЕКОНОМІЧНІ НАУКИ
ПРИРОДНИЧІ НАУКИ
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