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**Philadelphia, USA**

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### SECTION 7. Mechanics and machine construction.

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## DISPLACEMENTS GRADIENTS OF CANTILEVER AND DOUBLY SUPPORTED STEEL I-BEAMS AT BENDING

**Abstract:** *Isosurfaces of displacements gradients of cantilever and doubly supported steel I-beams loaded with concentrated and distributed forces were obtained by a computer simulation. Displacement gradient of the beams material (nine components) is presented by the deformation coefficient. The most uniform displacement of the I-beams material was determined along the xZ plane.*

**Key words:** *an I-beam, gradient, a component, force, moment, a coefficient.*

**Language:** *English*

**Citation:** Chemezov, D., et al. (2019). Displacements gradients of cantilever and doubly supported steel I-beams at bending. *ISJ Theoretical & Applied Science*, 04 (72), 301-312.

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### Introduction

Variable bending moment and constant shear force occur in a cross section of loaded cantilever single supported beams. Bending moment is resultant of elementary moments arising as a result of the action of longitudinal elastic forces. Shear force is resultant of tangential forces of elasticity. Arising shear stresses prevent shear of material layers in the loaded doubly supported beam. Shear stresses are zero on a surface.

The beams must have sufficiently rigidity. The longitudinal axis of the beam is bent at the action of shear forces. Each cross section has vertical and horizontal displacement as the result of the beam deformation. The researches of elastoplastic deformations of the I-beams were carried out in the works [1 – 7].

The computer simulation was used in this article for determining of the cross sections displacement of the I-beam throughout the volume at bending.

### Materials and methods

The steel I-beams were subjected to bending. Four I-beams were fixed on one support; five I-beams were fixed on two supports. Concentrated or distributed forces and concentrated moment were applied on the I-beams. These loads acted on different parts of the I-beams span.

The full information about the methods of the computer research of stress-strain state of the I-beams material is presented in the works [8 – 10].

### Results and discussion

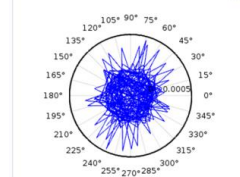
The layers displacement of the I-beams material at bending is presented by gradient. The color contours (the isosurfaces) of gradient show a displacement direction of the material layers of the deformed I-beam.

The isosurfaces of displacement gradient of the cantilever and doubly supported steel I-beams at bending are presented in the Fig. 1 – 9.

The first four cantilever beams have the displacement direction of the material layers from the support. Maximum intensity of the layers displacement of material occurs at the action of distributed force on the upper flange of the I-beam. Displacement gradient is expressed by the deformation coefficient. Displacement gradient has the minimum values at the action of concentrated moment.

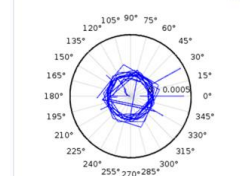
The changes of displacement gradient of the material layers of the I-beam along the main coordinate axes were considered in the polar coordinate system. The graphs are presented for the second loading scheme of the I-beam, since maximum deformation of material occurs in it.

Line Graph: Displacement gradient, xX component (1)



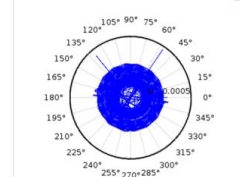
Displacement gradient (xX component) along the X-coordinate axis

Line Graph: Displacement gradient, xX component (1)



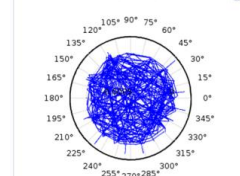
Displacement gradient (xX component) along the Y-coordinate axis

Line Graph: Displacement gradient, xX component (1)



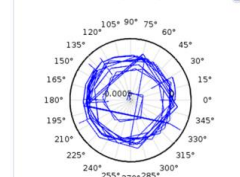
Displacement gradient (xX component) along the Z-coordinate axis

Line Graph: Displacement gradient, yY component (1)



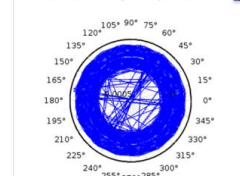
Displacement gradient (yY component) along the X-coordinate axis

Line Graph: Displacement gradient, yY component (1)



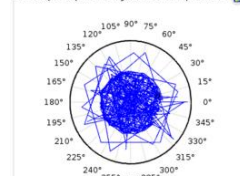
Displacement gradient (yY component) along the Y-coordinate axis

Line Graph: Displacement gradient, yY component (1)



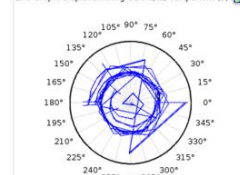
Displacement gradient (yY component) along the Z-coordinate axis

Line Graph: Displacement gradient, zZ component (1)



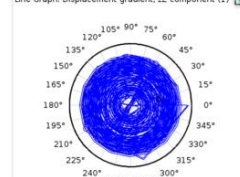
Displacement gradient (zZ component) along the X-coordinate axis

Line Graph: Displacement gradient, zZ component (1)



Displacement gradient (zZ component) along the Y-coordinate axis

Line Graph: Displacement gradient, zZ component (1)



Displacement gradient (zZ component) along the Z-coordinate axis

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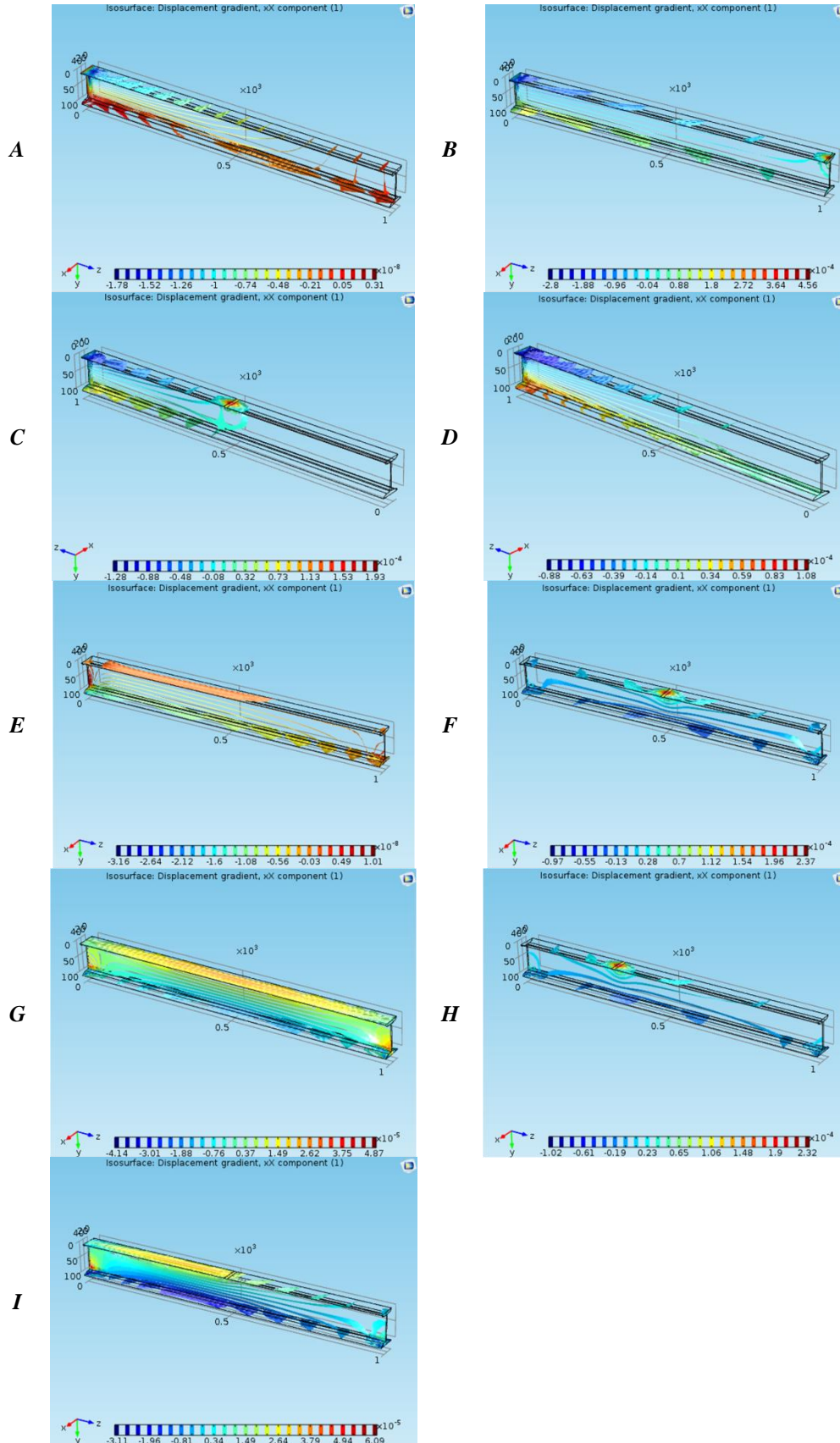


Figure 1 – Displacement gradient,  $xx$  component: *A* – the first scheme; *B* – the second scheme; *C* – the third scheme; *D* – the fourth scheme; *E* – the fifth scheme; *F* – the sixth scheme; *G* – the seventh scheme; *H* – the eighth scheme; *I* – the ninth scheme.



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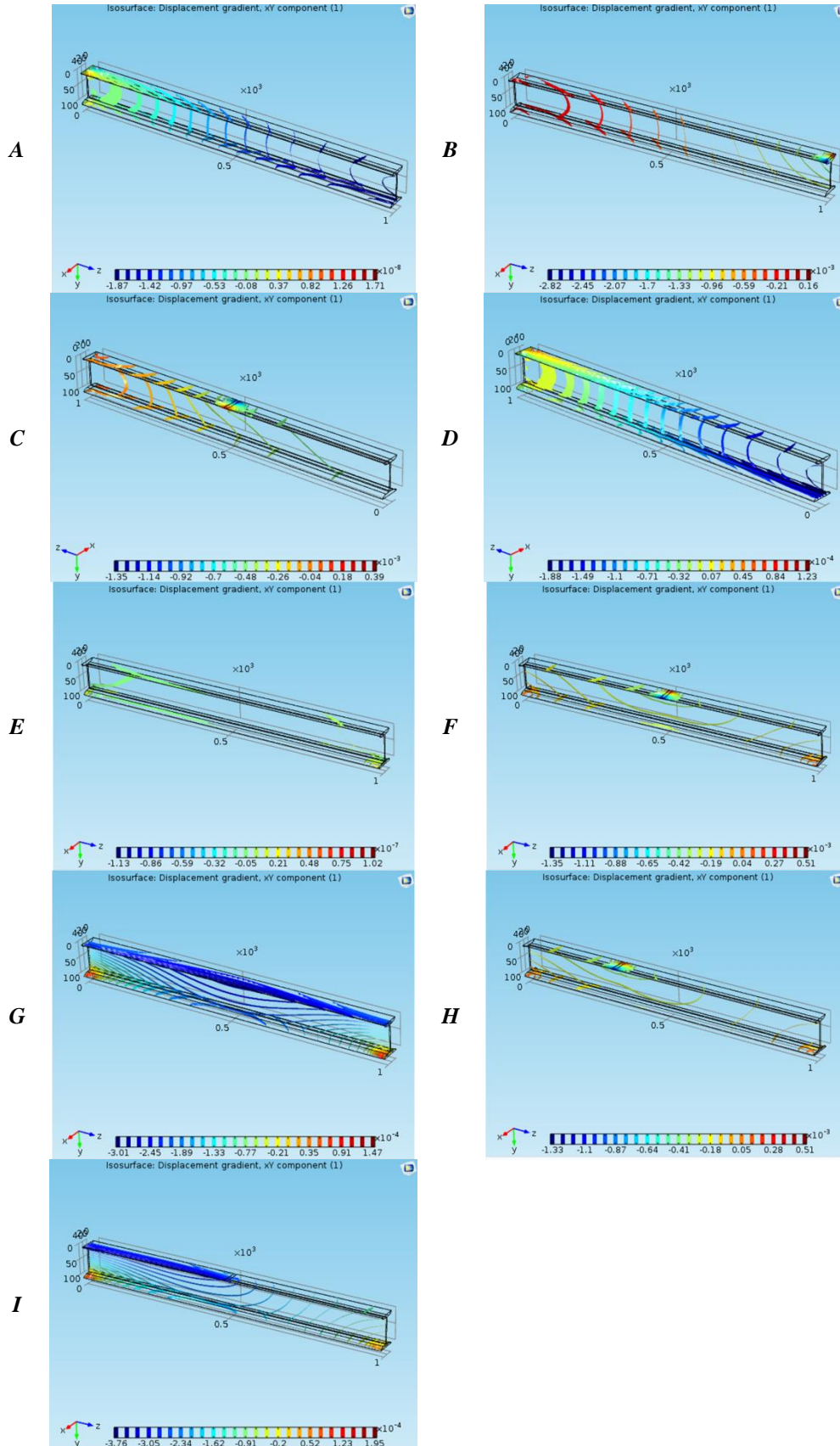


Figure 2 – Displacement gradient,  $xY$  component: *A* – the first scheme; *B* – the second scheme; *C* – the third scheme; *D* – the fourth scheme; *E* – the fifth scheme; *F* – the sixth scheme; *G* – the seventh scheme; *H* – the eighth scheme; *I* – the ninth scheme.

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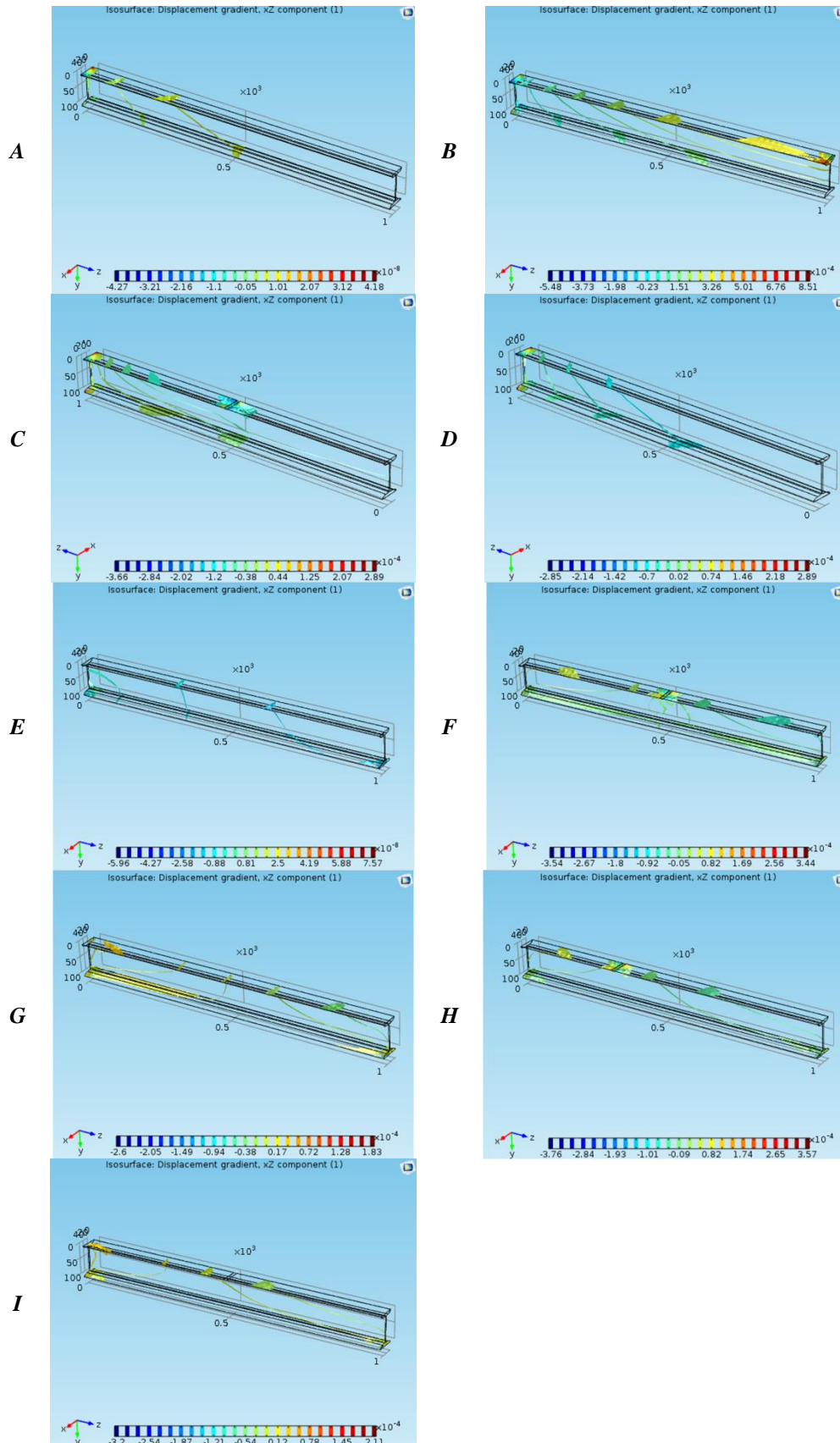


Figure 3 – Displacement gradient,  $xZ$  component: *A* – the first scheme; *B* – the second scheme; *C* – the third scheme; *D* – the fourth scheme; *E* – the fifth scheme; *F* – the sixth scheme; *G* – the seventh scheme; *H* – the eighth scheme; *I* – the ninth scheme.

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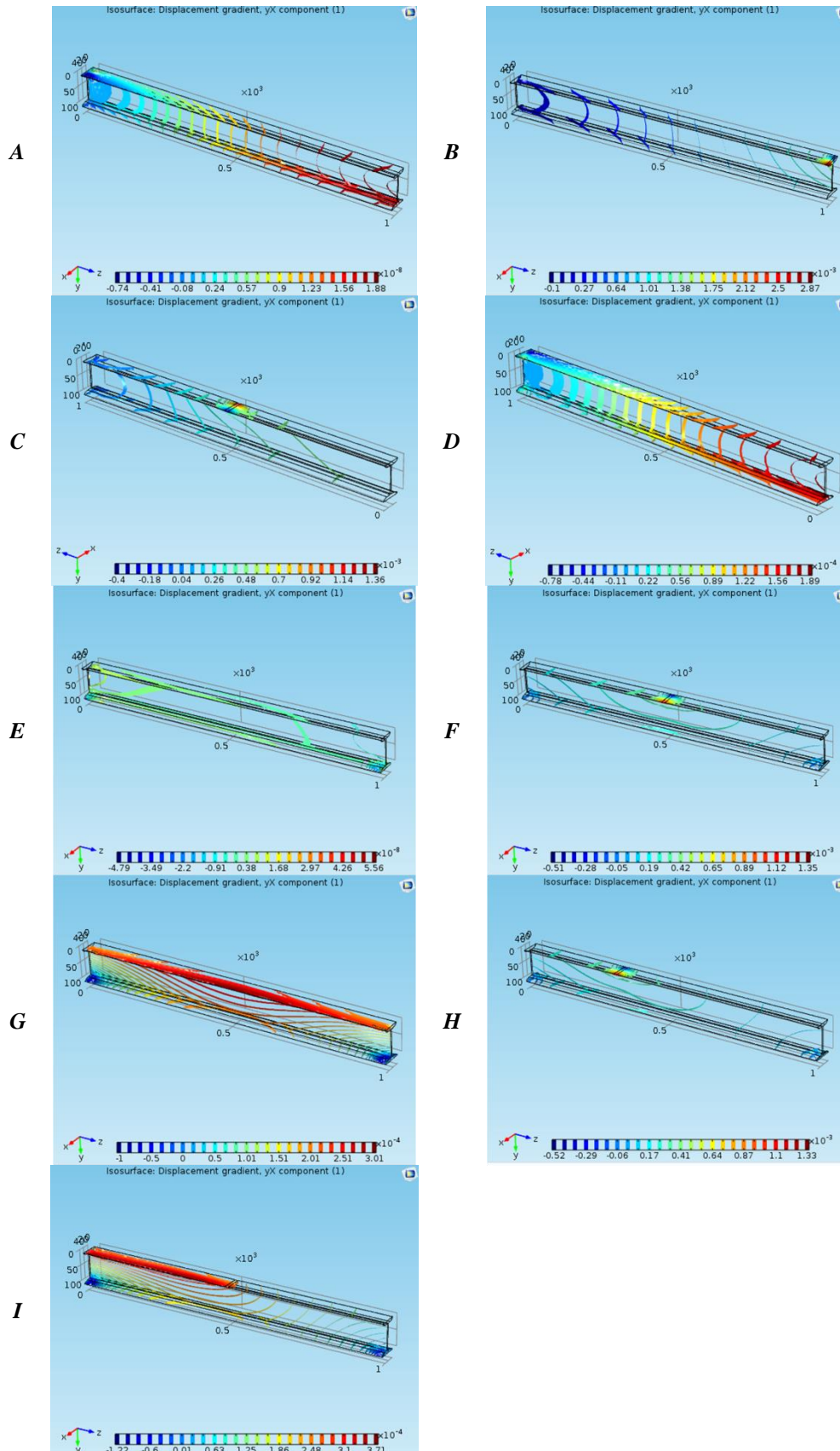


Figure 4 – Displacement gradient, yX component: *A* – the first scheme; *B* – the second scheme; *C* – the third scheme; *D* – the fourth scheme; *E* – the fifth scheme; *F* – the sixth scheme; *G* – the seventh scheme; *H* – the eighth scheme; *I* – the ninth scheme.

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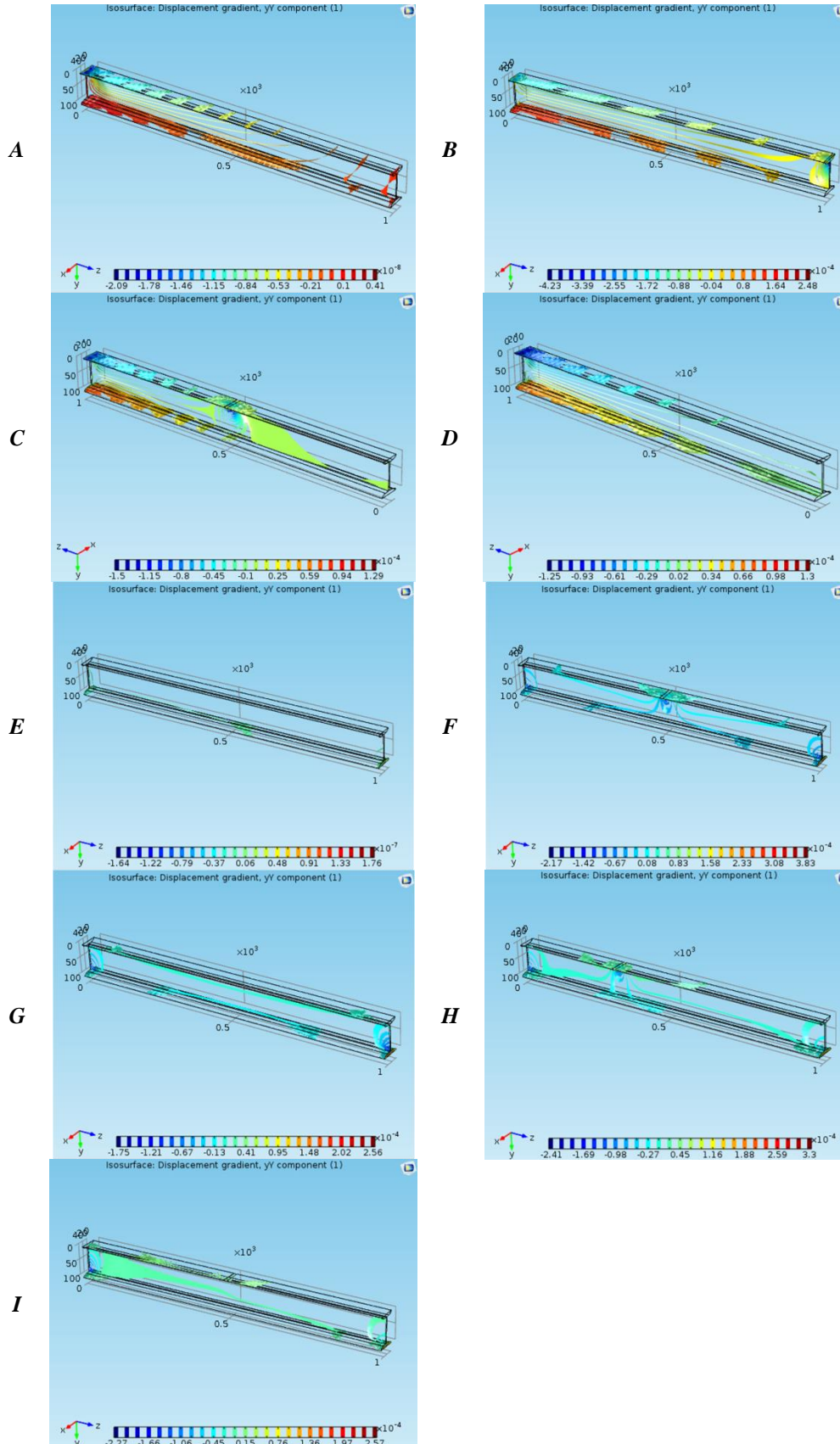


Figure 5 – Displacement gradient, yY component: *A* – the first scheme; *B* – the second scheme; *C* – the third scheme; *D* – the fourth scheme; *E* – the fifth scheme; *F* – the sixth scheme; *G* – the seventh scheme; *H* – the eighth scheme; *I* – the ninth scheme.

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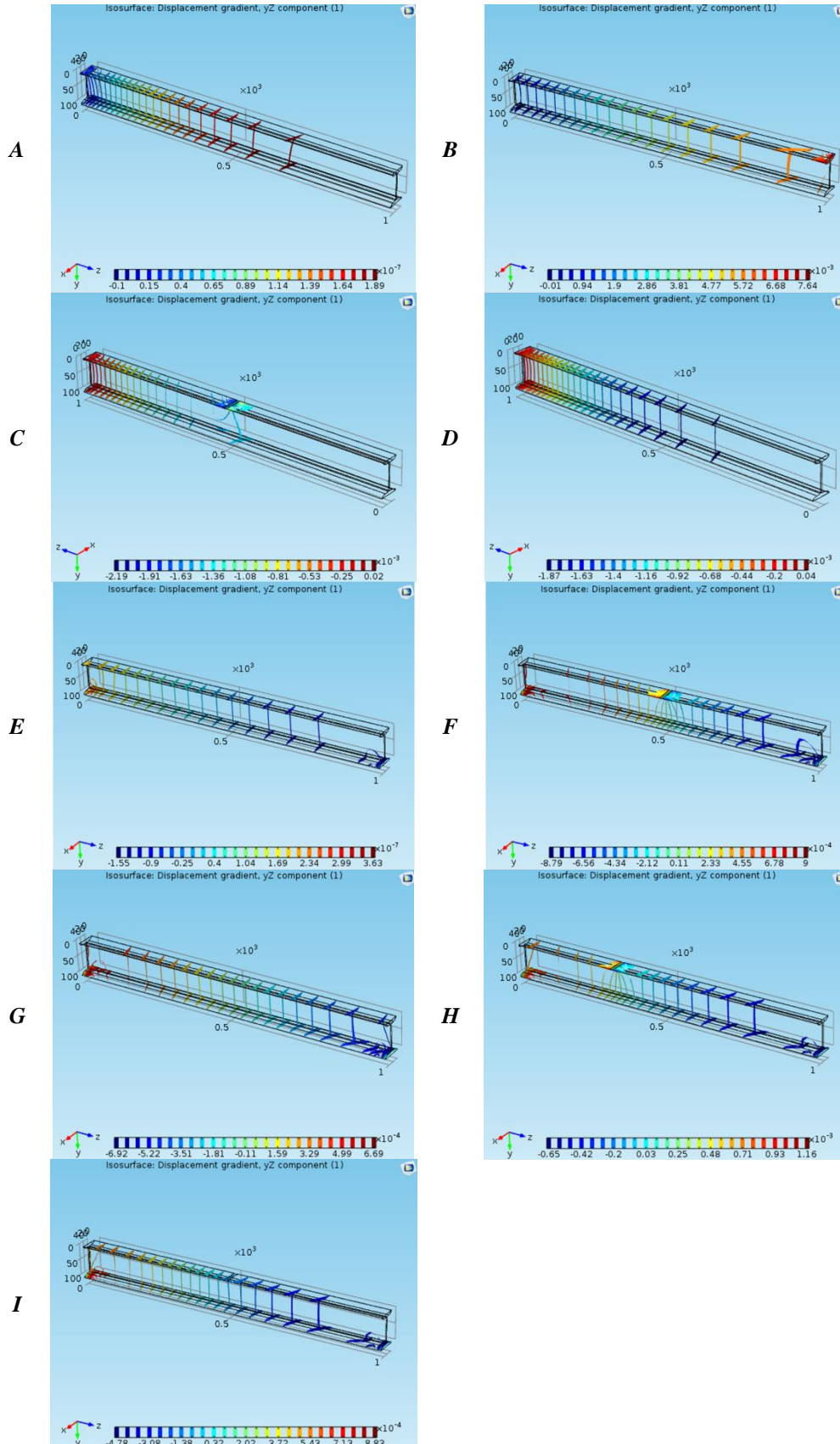


Figure 6 – Displacement gradient, yz component: *A* – the first scheme; *B* – the second scheme; *C* – the third scheme; *D* – the fourth scheme; *E* – the fifth scheme; *F* – the sixth scheme; *G* – the seventh scheme; *H* – the eighth scheme; *I* – the ninth scheme.

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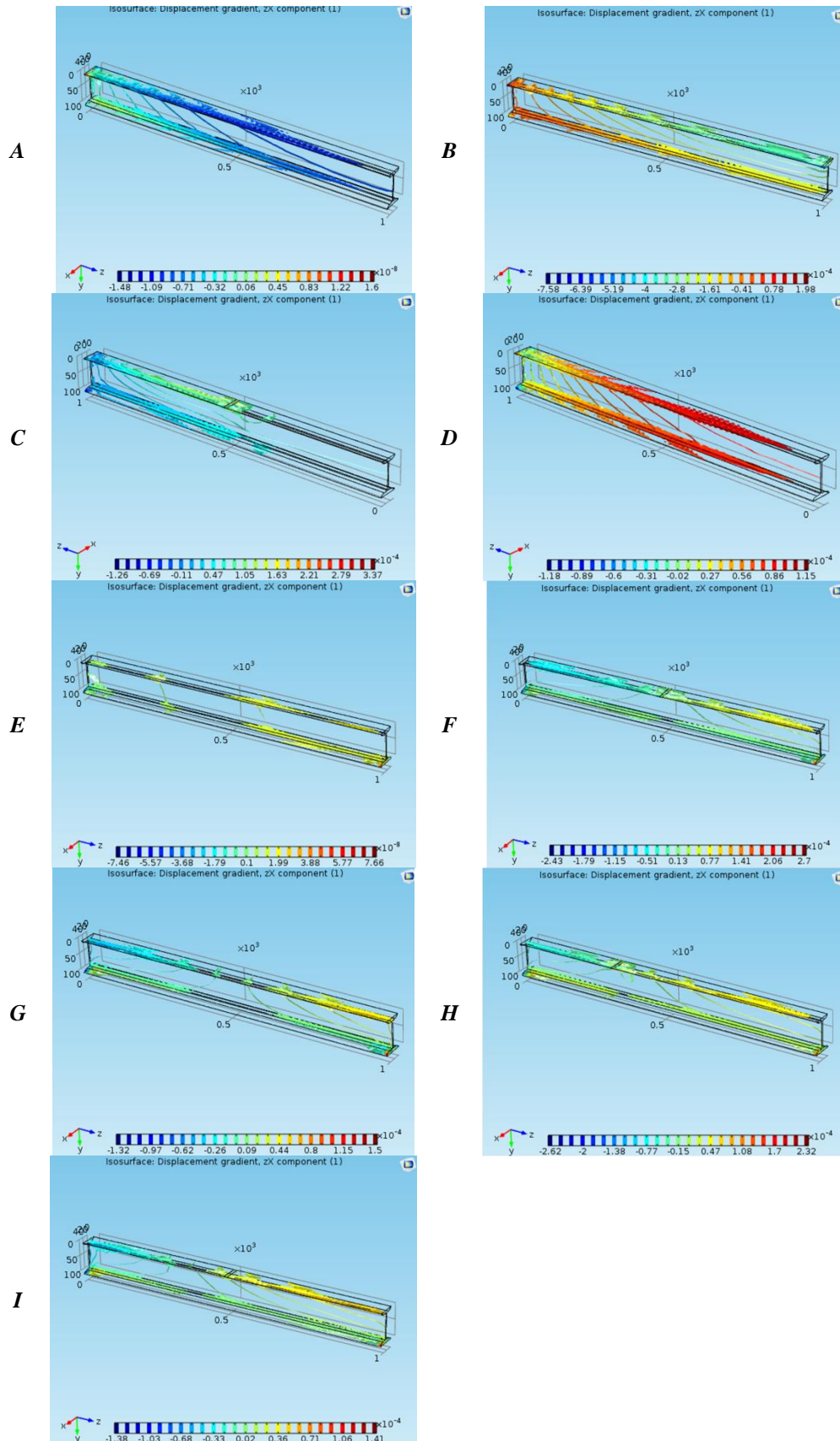


Figure 7 – Displacement gradient, zX component: *A* – the first scheme; *B* – the second scheme; *C* – the third scheme; *D* – the fourth scheme; *E* – the fifth scheme; *F* – the sixth scheme; *G* – the seventh scheme; *H* – the eighth scheme; *I* – the ninth scheme.

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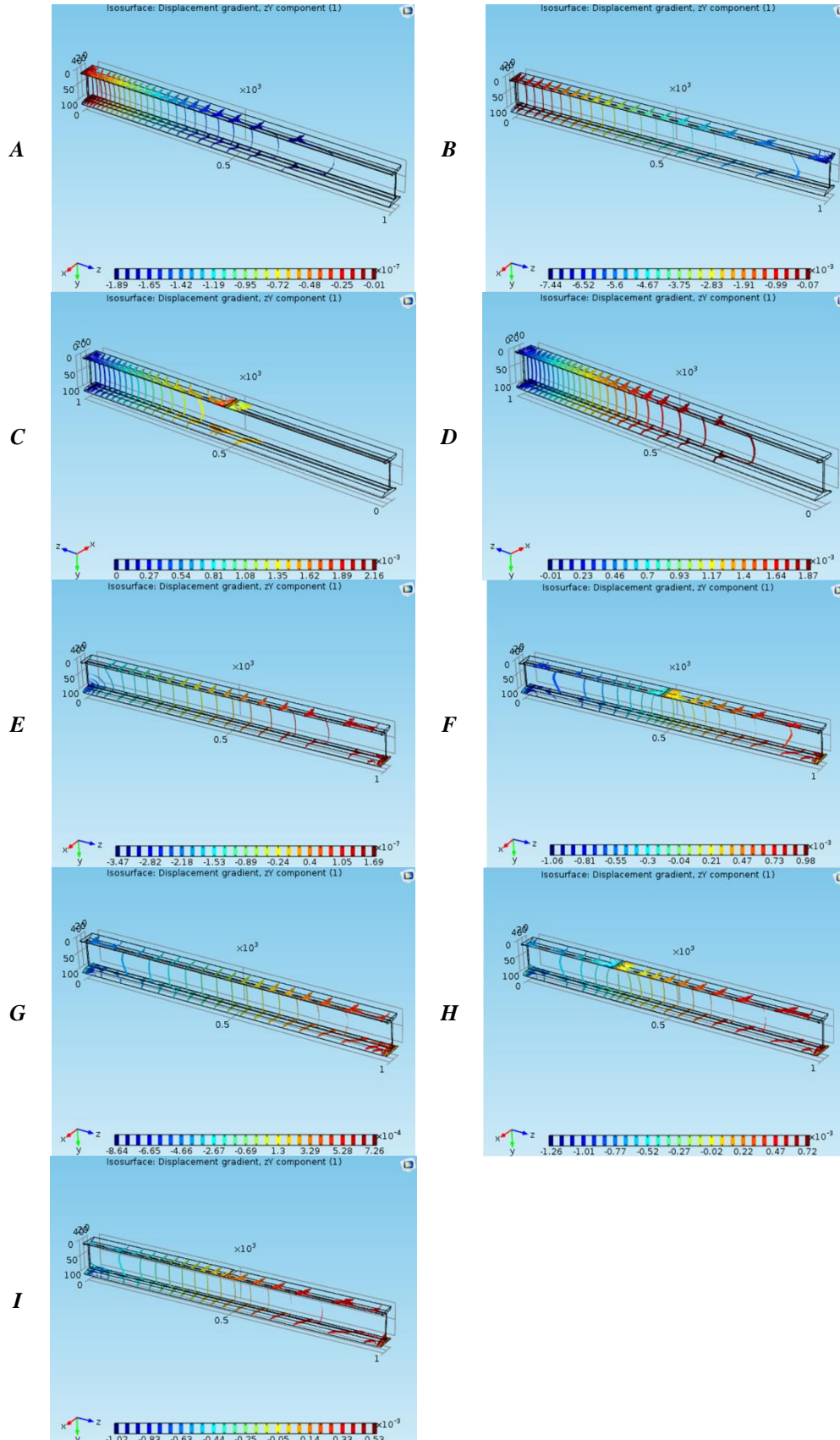


Figure 8 – Displacement gradient, zY component: A – the first scheme; B – the second scheme; C – the third scheme; D – the fourth scheme; E – the fifth scheme; F – the sixth scheme; G – the seventh scheme; H – the eighth scheme; I – the ninth scheme.

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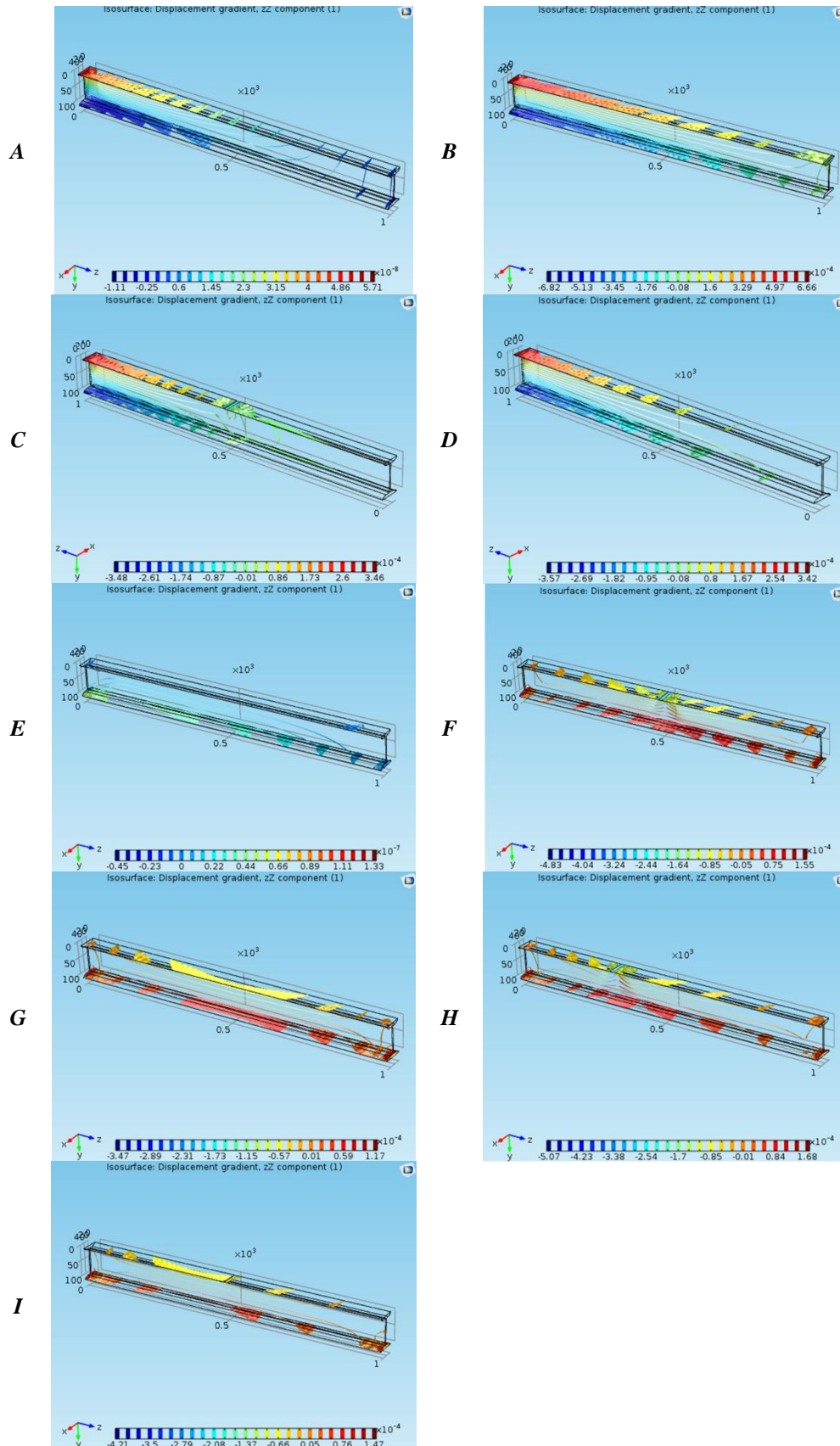


Figure 9 – Displacement gradient, zZ component: *A* – the first scheme; *B* – the second scheme; *C* – the third scheme; *D* – the fourth scheme; *E* – the fifth scheme; *F* – the sixth scheme; *G* – the seventh scheme; *H* – the eighth scheme; *I* – the ninth scheme.



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The value and the direction of the layers displacement of the I-beam material are different along the coordinate axes. The range of variation of displacement gradient is minimum along the X-axis (the beam width); the ranges of variation of displacement gradient are maximum along the axes Y and Z (the height and the length of the beam). The uniform distribution of displacement gradient of material was determined along the Z-axis.

## Conclusion

The type of load affects the direction and intensity of deformation of the material layers of the I-beam. Distributed load leads to increasing of intensity of the layers displacement of material, and concentrated load leads to increasing of the value of the deformation coefficient of the I-beam material. The I-beam width changes in the less degree.

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## TOKENS AND TYPES OCCURRING IN ESP CONTEXTS

**Abstract:** *In teaching English for specific purposes, we focus on technical context to teach because there are some tokens and types which students of engineering need to acquire in order to use them in spoken context. Any text is full of collections and frequency words which describe how many tokens and types may exist in the context of specialty, especially, mining engineering. However, we may see strong tokenization in the context of engineering. This paper highlights discussions of scholars on the issues of corpus linguistics, especially, collocations, tokens and types.*

**Key words:** *tokens, types, corpus linguistics, ESP context.*

**Language:** *English*

**Citation:** *Abdinazarov, K. S. (2019). Tokens and Types Occurring in ESP Contexts. ISJ Theoretical & Applied Science, 04 (72), 313-315.*

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### Introduction

The growth of corpus linguistics (McCarthy 1998) has convinced linguists that vocabulary is much more than the ‘unordered list of all lexical formatives’ which Chomsky (1965:84) referred to it. Pioneering studies of large corpora by linguists such as Sinclair (1991) have shown lexis to be a far more powerful influence in the basic organization of language and of meaning than was ever previously conceived. Corpora reveal that much of our lexical output consists of multi-word units; language occurs in ready-made chunks to a far greater extent than could ever be accommodated by a theory of language insistent upon the primacy of syntax. Recent developments in the study of lexis have generated new applications within lexicography and language teaching, offering the possibility of a better understanding of the nature of the lexicon, especially multi-word phenomena. Besides, the notion of collocation shifts the emphasis from the single word to pairs of words as integrated chunks of meaning in the contexts, and collocation has become an uncontroversial element in a good deal of language description and pedagogy. Collocations are not absolute or one hundred percent deterministic, but are the probabilistic outcomes of repeated combinations created and experienced by language users. Key discussions of the implications of Firth’s theory of collocation appear in Halliday (1966) and

Sinclair (1966). Both Halliday and Sinclair foresaw in the papers the development of the computational analysis of lexis using large amounts of text. Collocation studies show, most importantly, that a good deal of semantically transparent vocabulary is to a greater or lesser degree fossilized into restricted patterns (Aisenstadt 1981). Moreover, there are some tokens and types occurring in the context of specialty, which is more needed for acquisition of technical vocabulary. A present study shows text analysis, indicating, discussing; collocations, corpora, and tokens and types in the texts.

### 1. Words in Corpora

Sinclair (1987, 1991), based on his lexicographic studies of collocation in the Birmingham Collection of English Text (later known as The Bank of English), sees two fundamental principles at work in the creation of meaning. These he calls the *idiom principle* and the *open choice principle*. The *idiom principle* is the central one in the creation of text and meaning in speech and writing, and works on the basis of the speaker/writer having at his/her disposal a large store of ready-made lexicogrammatical chunks. Syntax, far from being primary, is only brought into service occasionally, as a kind of ‘glue’ to cement the chunks together. Sinclair (1996)

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sees form and meaning as complementary: different senses of a word will characteristically be realized in different structural configurations. This extends the original notion of collocation to encompass longer strings of words and includes their preferred grammatical configurations or *colligations* (Mitchell 1971). The unitary consequences of collocation and colligation produce meaningful strings or chunks which are stored in memory (Bolinger 1976) and which substantiate the idiom principle. The relationship of **collocation** is fundamental in the study of vocabulary; it is a marriage contract between words, and some words are more firmly married to each other than others. Any word in the language can be examined from point of view of grammar, and vice-versa, any word, even words like verbs and conjunctions can be considered as vocabulary items. Languages are full of strong collection pairs and, therefore, collocation deserves to be a central aspect of vocabulary study. Knowledge of collocation is knowledge of what words are most likely to occur together (Michael McCarthy 2006; 12).

### 2. Frequency occurring words

A word (or word-form) may be quite frequent, but majority, or even all, of its occurrences might be in just one or two texts, in which case, although its frequency might look significant, its range might be quite small. The useful words for the learner are those words which are frequent and have a fairly wide range that is those which occur across a wide variety of texts. Information about range can be presented in the form of statistical comparison between the occurrence of a word in one part of a corpus (e.g. just the scientific texts in the corpus) and its occurrence in the corpus as a whole. Any word that gets a differential of around 16 occurs with more or less the same frequency in the scientific texts as in the whole corpus. Any word with a lower differential is not very characteristic of scientific and learned English. Words with high differentials are characteristic of scientific and learned English (Michael McCarthy 40). We may see frequent occurring words in the contexts of one specialty; petroleum engineering ; **natural gas, crude oil, kerogen, synthetic crude oil, pumping, well construction, fossil fuel, seismology, seismic waves, mineral deposits, sedimentary, igneous, metamorphic rocks**. These technical words often occur in the context of petroleum engineering as well as mining engineering and they are considered as tokens and types.

### 3. Tokens and types

Lexical variation takes as its starting point the distinction between token and type. If a text is 100

words long, it is said to contain 100 tokens, but many of these tokens may be repeated within the text and this may give us a considerable lower total of types; she promised him she would write to him and write to him she did 'there are 14 tokens but some are repeated; there are only 8 types, (she', promised, him, would, write, to, and, did.). The ratio between tokens and types for this sentence is 14:8; the difference between the two numbers is great, indicating a fairly low load of differing items. In the sentence 'as the trees grow gold and brown, then autumn has come to replace summer', we have 14 tokens and 14 types, so the vocabulary load is quite high, with no repetition. Lexical variation counts do give us a rough measure of how many new items are introduced into a text as it unfolds; this may not be the same as new words for a language learner, but it can be a useful measure in predicting the likely degree of difficulty a text might present (Michael McCarthy.42). In the context of petroleum and mining engineering, tokens may occur more types;

1). **Fossil fuels** are **fuels** formed by natural processes such as anaerobic decomposition of buried dead organisms. The age of the organisms and their resulting **fossil fuels** is typically millions of years, and sometimes exceeds 650 million years. **Fossil fuels** contain high percentages of carbon and include coal, petroleum and natural gas.

2). **Natural gas**, once flared-off as an unneeded byproduct of petroleum production, is now considered a very valuable resource. **Natural gas** deposits are also the main source of the element helium.

According to the 1<sup>st</sup> context, there are 51 tokens and 38 types in the petroleum engineering context, and we may see frequency words occurring in every sentence within the context, they are; Fossil fuels, fuels those occur also in other texts of this field.

According to the 2<sup>nd</sup> context, there are 30 tokens and 26 types in the context of petroleum engineering, and we may see frequency words occurred in every sentence within the text, they are Natural gas.

### Conclusion

In ESP classes, we focus on professionally-oriented context to teach and design the class, coloring it because there are some tokens and types which frequently occurs not only in one text but also does in other written contexts which tell us about the subject matter learners need to know. We study collocations which modify the word related to, and vocabulary words which are tokens and types. We analyzed technical text to find out whether how many times one word occur in other sentences within specialty, and how many tokens and types does it consist of. We addressed to the discussions of scholars on the issues of collocations, tokens and types, corpora.

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### SECTION 32. Jurisprudence.

## CIVIL FEATURES OF AUDITING SERVICES

**Abstract:** The article analyzes the concept and essence of audit services. The relationship between the concepts of auditing activity, auditing services and auditing is determined. The analysis of the current legislation is carried out and the definition of an auditing service is proposed. It is concluded that the audit activity includes the concepts of audit and audit professional services.

**Key words:** services, work, audit, auditing, provision of services, entrepreneurial activity, action, result, audit services, audit, contract for the provision of audit services.

**Language:** Russian

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### ГРАЖДАНСКО-ПРАВОВАЯ ОСОБЕННОСТЬ АУДИТОРСКИХ УСЛУГ

**Аннотация:** В статье анализируется понятие и сущность аудиторских услуг. Определяется соотношение понятий аудиторская деятельность, аудиторские услуги и аудиторская проверка. Проводится анализ действующего законодательства и предлагается определение аудиторской услуги. Делается вывод о том, что аудиторская деятельность включает в себя понятия аудиторская проверка и аудиторские профессиональные услуги.

**Ключевые слова:** услуги, работа, аудит, аудиторская деятельность, оказание услуг, предпринимательская деятельность, действие, результат, аудиторские услуги, аудиторская проверка, договор об оказании аудиторских услуг.

### ВВЕДЕНИЕ

Услуги и их виды как объект гражданских правоотношений на сегодняшний день играют огромную роль в развитии рыночной экономики. С каждым днём возрастает их разновидность и виды. Соответственно развивается нормативно-правовая база регулирующая данные гражданско-правовые отношения. Среди видов услуг аудиторские услуги являются одним из востребованных услуг, потребителями которых являются инвесторы, налоговые органы, страховые компании. Аудиторские услуги как один из видов услуг являются основным независимым механизмом определения соответствия законодательству деятельности субъектов предпринимательской деятельности, а также выявления недостатков ведения бизнеса, и в свою очередь мотивацией для предпринимателя. На основании аудиторских заключений в крупных компаниях принимаются решения

инвесторов, советов директоров по вкладу инвестиций или по организации сотрудничества с новыми партнерами по бизнесу. Изучение гражданско-правовых особенностей аудиторских услуг является актуальным.

В научной литературе встречаются множество определений и подходов к понятию и особенностям аудиторских услуг. Особенно нужно отметить что, аудит это экономическое понятие. Поэтому в научной литературе больше встречается изучение аудита как экономического понятия, а потом уже раскрываются юридические особенности данной деятельности [3, с.193; 1, с.22]. Также в некоторых исследованиях ученые подчеркивают аудиторскую деятельность как экономико-правовую категорию [3, с.30].

Это связано со спецификой данной услуги, тем что аудиторская деятельность оценивает финансовую и бухгалтерскую деятельность, проверяет финансовые данные и документацию

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которые являются показателями предпринимательской и экономико-правовой деятельности субъектов предпринимательства.

### ОСНОВНАЯ ЧАСТЬ

Понятия «аудит», «аудиторская проверка», «аудиторская деятельность», «аудиторские услуги» в экономической и юридической науке изучаются довольно долгое время. Ученые исследовали данную категорию с разных точек зрения и были сделаны особо важные выводы.

1. *Аудит – это независимая проверка.* Данную точку зрения поддерживают В.А.Ерофеева, В.А.Пискунов, Т.А.Битюкова[7, с.7]. О.В.Епифанов[6, с.6] и другие. То есть «аудит» это «проверка». Этим самым термин аудит одно и в тоже время обозначает проверку, которая является независимой. Когда подчеркивается независимость проверки, имеется в виду разница между государственной ревизией или иных государственных проверок субъектов предпринимательской деятельности.

2. *Аудит – это предпринимательская деятельность.* Данное определение встречается в работах Е.Р.Баханьковой, [2, с.3] Ю.Ю.Кочинева, [11, с.9] А.А.Ли[14, с.94], П.М. Владимировой а также Князевой Е.Ю.[5, с.55].

На наш взгляд, это определение является непосредственно продолжением понятия аудит как независимая проверка. То есть если аудит это независимая проверка значит она осуществляется в определенной форме как частная деятельность и как в виде возмездных услуг. Иначе, аудит теряет свой смысл, функцию и цели которую она выполняет в рыночной экономике.

3. *Аудиторские услуги и аудиторская деятельность являются разными понятиями. Аудиторские услуги включают в себя аудит.* М.В. Леус, Р.Н. Аганина, Л.М. Булгакова, А.А.Исаев поддерживают данную точку зрения.

4. *Аудиторская деятельность включает в себя понятие аудит. Аудиторская деятельность – это предпринимательская деятельность.* К таким выводам пришли В.Н. Колесников, И.В. Тордия, Л.М. Булгакова, Р.А. Абдуллаева, А.А. Марьина, Д.В.Литвин, Е.П.Богданова, Ш.Н. Рузиназаров и М.П.Куркина[13, с.4].

К этой группе можно отнести такое понятие как аудит и аудиторская деятельность являются родственными и то что аудит это вид услуги[4, с.193].

Существуют следующие научные мнения ученых, которые отличаются от предыдущих. Например, с юридической точки зрения, И.В.Тордия даёт определение о том что, аудит есть совокупность правовых норм, регулирующих общественные отношения в сфере аудиторской деятельности. Указанная совокупность норм образует самостоятельный, комплексный

правовой институт, в котором гармонично сочетаются правовые и публично правовые начала. Однако основа данного института гражданско-правовые нормы[20, с.26].

Т.А. Муминов, и В.Н.Колесников считают что аудиторские услуги это один из видов возмездного оказания услуг, являющиеся экспертизой финансовых документов, а также это оказание услуг по договору которое заключено с клиентом. [16, с.91; 10, с.47].

По мнению Владимировой П.М.и Князевой Е.Ю. аудит представляет собой предпринимательскую деятельность аудиторских организаций или индивидуальных аудиторов по осуществлению независимых проверок бухгалтерской и финансовой отчетности, платежно-расчетной документации, налоговой отчетности и других финансовых обязательств хозяйствующих субъектов на основании заключенного с ними договора[5, с.55].

По мнению Козменковой С.В. аудиторские услуги включают не только проведение проверки, также включает осуществление проверок которые соответствуют стандартам аудиторской деятельности.[8, с.31]

На наш взгляд, в выше упомянутых определениях отмечается толкование одного и того же понятия по разным критериям. Следует сказать, ученые пришли к единому решению по поводу, того что аудит это- предпринимательская деятельность. Но до сих пор не исследована с точки зрения гражданского права особенности аудиторских услуг а также является ли аудиторская проверка услугой или работой.

Действующее законодательство Республики Узбекистан по данным вопросам не даёт четкого определения работы и услуг. Исходя из современных требований рыночной экономики 38 глава Гражданского Кодекса требует усовершенствования норм регулирующих отношения по оказанию услуг.

Закон Республики Узбекистан об аудиторской деятельности от 26 мая 2000 года во 2- статье устанавливает, под аудиторской деятельностью предпринимательскую деятельность аудиторских организаций по оказанию аудиторских услуг. Аудиторские услуги включают в себя аудиторские проверки и профессиональные услуги. То есть, закон установил, что аудиторская проверка входит в состав услуг.

Сравнительный анализ показывает что в действующих законах об аудиторской деятельности нескольких стран СНГ таких как Республика Казахстан, Российская Федерация, Республика Таджикистан, Киргизия, Республика Беларусь закрепляются нормы, о том что аудит - это независимая проверка и аудиторская деятельность это предпринимательская

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деятельность. В законе об аудиторской деятельности Российской Федерации в 1 статье во втором пункте, можно обратить внимание «аудиторская деятельность (аудиторские услуги)». То есть, настоящая статья отмечает понятия как едиными.

Нужно отметить, что термин “аудиторские услуги” на наш взгляд употребляется для обозначений и аудиторскую деятельность и аудиторскую проверку и аудиторские профессиональные услуги.

Аудиторская деятельность как один из самостоятельных видов услуг имеет свои особые признаки. Особо нужно отметить, что по данному понятию ученые пока не пришли к единому мнению. Это связано с тем что в гражданском праве до сих пор четко не разработана грань работы и услуги. Группа ученых считают что аудит содержит в себе признаки работы и услуг, другая же группа ученых придерживаются мнения того что аудиторская деятельность это только услуга. По нашему мнению, аудиторская деятельность является широким понятием как услуга включающая в свой состав аудиторскую проверку и аудиторские профессиональные услуги. Юридическая сущность аудиторской деятельности определяется признаками его предпринимательской деятельности а также, как одного из видов услуг. В юридической науке известно что предпринимательская деятельность имеет такие признаки как, независимость, деятельность направленная на получение прибыли, организационная самостоятельность, имущественная ответственность, рискованной характер[18,с.8]. Исходя из этих признаков можно проанализировать аудиторскую деятельность следующим образом.

*Во первых*, аудиторской деятельностью занимается лица которые прошли соответствующую регистрацию, то есть имеют сертификат или лицензию, то есть услугодатель – аудитор имеет образование в сфере финансовых наук и соответственно должен соблюдать правила профессиональной этики. Оказание аудиторской услуги возможно только при наличии соответствующего наличия знаний и компетенций аудитора который является исполнителем аудиторских услуг.

*Во вторых*, аудиторская деятельность осуществляется аудиторскими организациями которые имеют организационную самостоятельность. Согласно 5-статье действующего закона Об аудиторской деятельности Республики Узбекистан аудиторская организация — юридическое лицо, имеющее лицензию на осуществление аудиторской деятельности. Аудиторские организации в своей деятельности являются независимыми. Аудиторские организации не

могут создаваться министерствами, государственными комитетами, ведомствами и другими органами государственного и хозяйственного управления. Аудиторские организации могут создаваться и осуществлять свою деятельность в любой организационно правовой форме, предусмотренной законодательством, за исключением акционерного общества.

*В третьих*, аудиторская деятельность имеет рискованной характер. Аудитор заранее не имеет информацию об ошибках и недостатках в документах заказчика услуг. Поэтому он при оказании услуг рискует. Как отмечают, И.И.Насриев, Х.В.Бурханходжаева предпринимателями можно считать участников такой деятельности которая в целях получения дохода, рискуя оказывают услуги, выполняют работы и реализуют товары[17,с.50].

*В четвёртых*, аудиторская деятельность имеет возмездный характер и обязуется имущественной ответственностью. Услуги оказываемые аудитором являются возмездными. Аудиторская организация независимо от кого либо сама выбирает свою деятельность, планирует и организует её. Её деятельность не планируется кем либо. Аудиторская организация сама определяет свою перспективу исходя от оказываемых услуг.

На наш взгляд, аудиторская проверка это одна из разновидностей аудиторских услуг. Аудиторская проверка особенно отличается от профессиональных услуг методом действий аудитора, спецификой результата услуг (то есть аудиторское заключение), формой осуществления. Не всегда при оказании аудиторских профессиональных услуг аудитор осуществляет те действия которые он выполняет при аудиторской проверки, но когда он осуществляет аудиторскую проверку аудитор может воспользоваться аудиторскими профессиональными услугами, для того чтобы выявить результат. Результатом аудиторской деятельности при аудиторской проверки является аудиторское заключение, которое оформляется соответствующим образом. Но данное заключение на наш взгляд не имеет овестьвенный характер. Так как, результатом аудиторской проверки является независимое мнение аудитора. Мнение аудитора оформляется согласно требованиям правил аудита в виде письменного документа. Под действием аудитора стоит понимать действия которые аудитор осуществляет во время процесса оказания услуг. То есть планирует, определяет объём услуг, изучает и рассматривает документацию связанной с деятельностью заказчика, проверяет, проводит экспертизу, оформляет, запрашивает нужные данные и т.д. То есть действия которые взаимосвязаны

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непосредственно между собой которые не могут быть отделены от друг друга и результат аудиторских услуг зависит от правильного планирования и осуществления действий аудитора. Заказчик аудиторских услуг и сам аудитор до конца процесса не знают к какому результату приведёт их действия. По этому нужно отметить что, эффект от оказанной аудиторской услуги может отсутствовать.

К аудиторским профессиональным услугам относятся как постанова, восстановление и ведение бухгалтерского учета, составление финансовой отчетности, анализ финансово-хозяйственной деятельности хозяйствующих субъектов, консалтинг по бухгалтерскому учету, налогообложению, планированию, менеджменту и другим вопросам финансово-хозяйственной деятельности, составление расчетов и деклараций по налогам и другим обязательным платежам. Разница между аудиторской проверкой и аудиторских профессиональных услуг заключается в том в действиях и в результате услуг. При аудиторской проверке услугополучатель получает и потребляет результат аудиторское заключение которое влияет на правовые отношения и правовой статус услугополучателей. А при аудиторских профессиональных услуг, услуги потребляются в момент при осуществлении действий и результат данных услуг, иногда может и не существовать в виде документа.

Мнения Л.Э.Мартиросовой можно соотнести к аудиторским услугам. Услуга как объект гражданских прав имеет следующие отличительные особенности: содержит в себе конкретное указание на деятельность, которую необходимо совершить; указание на специфический результат; эффект, к которому должно привести оказание услуги и (или) момент окончания оказания услуги; потребление услуги в момент ее оказания; результату предшествует совершение действий, которые в зависимости от вида услуги могут не иметь материального результата либо иметь такой результат, при этом факт достижения результата относится больше к показателям качества оказанной услуги, а не факту ее оказания[15,с.109].

По мнению Х.Х.Курбановой одна из особенностей аудиторских услуг: неотделимость

услуги от источника. Действительно, аудиторская услуга не создается сама по себе и не может существовать отдельно от своего источника, то есть от аудитора или консультанта, оказавшего данную услугу. Как и во всех видах услуг, в аудиторских услугах несохраняемость является их особо важной чертой. В хозяйственной практике невозможно перевозить аудиторские услуги, хранить их какое-то время для последующей продажи, как это обычно совершается с товарами. Услуга, в частности аудиторская, создается и потребляется одновременно в одном и том же месте, на экономическом объекте, в одно и то же время, и по этой причине рынок услуг более локализован, то есть связан с определенным местом, нежели рынок товаров[12,с.131]. Это обосновывается тем, что аудиторские услуги включают в себе состав категорий относящиеся к понятию “услуга”. “действие”, “услуга”, “деятельность”, “результат”.

Кроме того, аудиторская деятельность обладает признаком того что, “не всегда можно определить его качество или качество не может объективно быть установлен” [9,с.43]. Понятие качества аудиторских услуг и контроль над этими услугами является актуальной и определение качества на сегодняшний день регулируется международным стандартом МСА 220.

## ЗАКЛЮЧЕНИЕ

В качестве заключения нужно отметить исходя из выше изложенных аудиторская проверка входит в категорию понятия услуга и сделать следующие выводы:

*Во первых*, аудиторская проверка и аудиторские услуги входят в составную часть аудиторской деятельности и составляют логическую цепочку “услуга-действие-деятельность”.

*Во вторых*, в правовых отношениях связанных аудиторской деятельностью верховенствует нематериальный объект, а юридический объект. Этим юридическим объектом считается сама деятельность аудитора как исполнителя услуг.

*В третьих*, действие аудитора при оказании услуг неотделима от результата и результат является неотделимой частью действия. То есть если нет действий нет результата.

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## TEACHING RUSSIAN LANGUAGE THROUGH MOODLE

**Abstract:** In today's century technology (computer, video, online-papers, animation, and webinars) is widely being utilized in teaching system. In teaching Russian language as a second language, we designed curriculum with electronic platform MOODLE for bachelor's degree program. Furthermore, having gained a lot of teaching experience in a virtual environment, the scholars showed forms of successful organization of the educational process provide tactics and strategies for studying how to use presentations, video lectures and webinars, as well as teaching aids based on the electronic platform MOODLE

This article highlights the features of MOODLE platform which enables good use of the potential of information and communication tools in the practice of teaching the Russian language for special purposes (mining engineering).

**Key words:** IT technologies, MOODLE, Russian language as a second language.

**Language:** English

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### Introduction

The modern educational situation in our country is characterized by the following trends: the integration of information technologies into the educational process, constant scientific development, and the necessity for teachers to develop linguistic personality who tends to self-directed study of second language. One the modern electronic library where a teacher upload all relevant subject-specific e-materials is platform MOODLE, which has multiple features, including the ability to engage in social networking outside the traditional classroom; a wide range of technological advances and service functions such as wiki, chat, conferences, e-mail, discussions (forums), webinars, interactive and graphical chat, questionnaires, seminars, surveys, a unified registration system and users' statistical monitoring, assessment of students' performance, and feedback in the form of pedagogical interaction.

The rapid development of ICT and its wide use in the teaching of Russian not only expanded the competence of language teaching, but also led to the formation of a new trend: e-linguistics (or computer linguistics). The main purpose of e-linguistics is to provide a theoretical and practical base for language teaching in the new conditions of the information society [4]. The electronic language teaching in our

study converts the spontaneous process of informatization of theory and practice of teaching Russian into a scientific system managed by teachers and linguists. Moreover, the features of electronic e-learning were further studied in details.

### 1. Virtual learning

"The virtual learning environment is a unified information training field, which enables the full realization of a complex of innovative individual-centered learning technologies aimed at remote pedagogical contact, providing a high degree of student's autonomy in choosing the trajectory of learning, self-control of the chosen path of learning and that encourages self-evaluation of educational achievement [1].

In non-philological practice, Russian language proficiency for a student with technical profiles is a necessary communication tool for future professional communication. In order to solve various communication tasks in teaching and professional spheres of socializing, a student should possess the following professional competences:

□ analyze and interpret professionally-oriented information contained in authentic texts and documents;

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□ realize the collection, analysis and processing of data which are necessary for solving professional tasks;

□ organize the activity of a small group created for the realization of a certain educational project;

□ use modern technical means and information technologies etc. for solving communicative tasks [7].

The most important aspect of teaching Russian language to a student with technical profiles in Russian higher education is the development of language-communicative competence in the chosen specialty and preparation for independent professional activity in Russian [5].

It is obvious that the process of teaching Russian language, focused on the learning by students of the above competencies, is impossible without the use of modern IT tools. The use of these tools, among other things, leads the learning process in one line with the current level of technological development of society, as well as allows us to synchronize the study of Russian language as a second language with teaching professional disciplines. In this regard, we consider it expedient to speak not only about the use of ICT in teaching Russian as a second language, and more specifically the integration of ICT in teaching students the language of their specialty (mining engineering). Additionally, scientific interest in the development of communicative competence by students of non-linguistic specialties is closely related with the understanding of the significance of creative activity of specialists in different spheres and situations concerned with cross-cultural communication, partnerships in trade, and collaborative scientific and industrial work.

### 2. ICT is the mean to reflect needs of learners

These are the following tasks for a teacher at classes of the Russian language for special purposes at a beginner stage of learning (level A1):

- To enhance language skills (reading, writing, speaking) of learners at an beginning stage
- To focus on their oral production (making a dialogue, conversation between teacher and student)
- To develop their comprehension of Russian language (using different videos, documentary films in A1 level)
- To improve their pronunciation in Russian language (promote them reading authentic texts in A1 level, giving them education in Russian phonetics)
- To promote them making a sentence (enhancing their knowledge of Russian grammar)

As the most effective forms of ICT in the educational process of teaching Russian as a second language, we developed an algorithm for the

educational process to teach Russian as a second language for specific purposes based on the use of a mixed model of learning (blended learning framework). By mixed model of learning we mean the complex use of the following forms of ICT: electronic presentations in PDF format, video lecture, webinars, and tutorials developed on the electronic platform MOODLE. Often such forms of ICT are used for remote work with students in teaching practice. They are organically woven into the learning process in the classroom and extracurricular self-study in our model.

The proposed algorithm consists of the following successive steps:

□ Formation of a professional thesaurus based on teaching materials developed for the electronic platform MOODLE.

□ Realization of control and checking activities for the learning of professional terminology by using video lectures on professional topics in Russian.

□ Securing collection and analysis skills on professional issues through the creation of presentations.

One of the online meeting opportunity is Webinar.

Webinars involve conducting online meetings or presentations via the Internet in real time, during which each participant uses his computer, and a leading person uses a voice signal and slides. Communication between actors is supported via the Internet through a loading from network or installed on the computer of each participant application[8]. The advantages of using webinars are:

- the possibility to organize a big audience simultaneously;
- the availability of information via sound and visualization delivery;
- interactive communication with the audience;
- performance of online presentations, training sessions, synchronization and activities of the leading person and the listener.

A distinctive feature of webinars is expressed in the integrative work of students, since their participation in this event involves not only getting information from material provided by peers but also its discussion, analysis and evaluation.

### 3. Electronic lecture in teaching Russian language

Video lectures typically involve lecture material outlined by the teacher as a video record, which can be represented to the student in a delayed mode. In addition to compliance with the substantive requirements applicable to the traditional classroom lecture, a video lecture must satisfy the following specifications:

- maximal simplicity and accessibility of the presentation. This requirement stems from the fact that in this case there is no interactive contact between

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the teacher and the audience. The teacher is not able to detect a lack of listeners' understanding of any part of the presented material, and students cannot tell him about it immediately;

- inclusion of a large number of accompanying (visual) material in the video lectures. Compliance with this requirement to some extent compensates for the lack of interactive contact with the audience and makes maximum use of ICT's potential. In this case, the text of the lecture is fully synchronized with the giving of accompanying material. Performance of video lecture, for example, on the topic "Pumping oil and gas", students must first watch the documentary film on pumping system and understand the content with the help of post experience in L1. Furthermore, discuss the video lecture among each others. Moreover, do exercise in order to improve and acquire technical vocabularies which were stated in the film. It must be noted that in our practice video lectures are not training activities or a checkout task, the purpose of which is to identify the student's ability to perceive by hearing the material covered on the themes of specialty. In this case, we check the amount of material on professional terminology learned by the students, which was presented in the learning process while working with textbooks.

#### 4. Conclusion

Information technologies have radically changed the approach to teaching in terms of learning and digestion of knowledge and skills of students. There

has been a mode delivery transformation of teachers' knowledge and skills. Electronic presentations, webinars and video lectures, tutorials, created on the electronic platform MOODLE proved their effectiveness as innovative forms of information and communication technologies in the practice of language education for the students with technical profiles. The most difficult aspect, in our opinion, is to achieve synchronization of language, speech and meaningful (professional) components in teaching Russian language to students for special purposes. This synchronization can be successfully achieved in a mixed model of learning when tasks performed using ICT, organically woven into the basic educational process, help to consolidate skills and work in the information environment based on the active use of information and communication technologies, which is very important for the formation of students' future professional competencies. In addition, the integration of ICT in teaching Russian for special purposes introduces students to innovative forms of professional verbal and nonverbal communication, which in turn contributes to rapid adaptation to the world of the future specialization. Moreover, platform MOODLE gives students more opportunities to study the languages and other subjects even if they will not participate in the classes. Platform MOODLE is the Electron library where we may download e-materials; e-books, e-videos to study the subject better in order to improve our background knowledge.

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**SECTION 22. Policy. Innovations. Theory,  
practice and methods.**

## THE ROLE OF ADMINISTRATIVE REFORM IN THE SYSTEM OF CABINET OF MINISTERS IN UZBEKISTAN

**Abstract:** Article is devoted reforms in the area of execution government in independent years in Uzbekistan by the helping media materials, historical books and scientific literatures as well.

**Key words:** Uzbekistan, execution government, reforms, state, economy, organization.

**Language:** English

**Citation:** Komilov, D. T. (2019). The role of administrative reform in the system of cabinet of ministers in Uzbekistan. *ISJ Theoretical & Applied Science*, 04 (72), 325-327.

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### Introduction.

The state of Uzbekistan, with its role and capacities in the world community, has set itself the goal of building a just civil society based on a socially-oriented free marketplace and a fair civil society that promotes human rights and freedoms. Many reforms have been carried out in this area, and the reforms are aimed not only to reform, but also to the welfare and prosperity of the people living there. Consequently, when the priority of human interests becomes the main criterion of the state power, President Shavkat Mirziyoev addressed to the Oliy Majlis of the Republic of Uzbekistan on December 22, 2017, on the basis of a clear criterion and procedure for the further perfection of the activity of the executive branch (Cabinet of Ministers) and lower government bodies in the country's administration has been approved. These criteria and procedures include:

### Methods of research.

First of all, it is necessary to improve the performance of the executive branch, to introduce specific criteria and procedures for the use of personnel, material resources.

Secondly, it is necessary to clearly define the order of execution of the functions of the executive branch and their responsibilities.

Thirdly, it is necessary to reduce the administrative impact on the sectors of the economy and the use of market mechanisms. In other words, it is necessary to restrict the creation of business-linked businesses, develop market-specific mechanisms, and

transfer certain functions of the state to the private sector.

Fourthly, it is necessary to gradually overestimate the centralized governance by improving the methods and methods that will ensure close co-operation between the representative authorities and executive authorities. There is a need to provide public services directly in lower levels, and to increase the financial and other capacities of local authorities. There is a need to streamline and simplify the existing procedures, introduce innovative forms of governance.

Fifth, it is necessary to reform the institute of public service and introduce mechanisms of effective anti-corruption. Today, life itself requires an effective system of forming a professional, fast and effective public service system, opening up a broader approach to innovative thinking, initiative, country-loyal staff [1, p.21].

Indeed, today we have been targeted at building a civil society by introducing the concept of "from a strong state to stronger society" to the development of the developed countries, whilst fully overseeing human rights and interests, creating a free and prosperous life. In this regard, it is the time of deepening democratic reforms and modernization of the country, primarily aimed at improving the state and society building. Further improvement of the role of executive power in reforming and modernizing the public administration system has become a necessity to develop a concept of administrative reform to regulate democratic reforms in a society. Based on this

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need, the Decree of the President of the Republic of Uzbekistan Shavkat Mirziyoev of 8 September 2017 "On Approval of the Concept of Administrative Reforms in the Republic of Uzbekistan" was adopted by the Decree # PF - 5185 [2, p.3].

Consequently, the modernization of state power bodies has been step up in all spheres of life in order to liberalize all spheres of public life. The existing shortcomings in the public administration system do not allow adequate response to growing demands of the community, addressing the problems faced at the local level, accelerating the development of the economy and, as a consequence, the ongoing positive changes in the lives of people. In this regard, it is of particular importance to formulate a conceptual new concept of public administration through the successful implementation of the Concept of Administrative Reforms, which outlines the main directions.

Particular attention was paid to the sharp reduction of the direct intervention of the executive structures of the executive and administrative bodies of the executive branch to the functioning of the business structures in order to change the powers of regulating and distributing their management. In other words, adaptation of their powers to free market relations and market principles was taken to reduce the interference of the state into economic management. This led to the decentralization transition from centralization to governance, namely, the transition from the national level to the regional, district and city levels, and to the self-governing body, which was a form of governance, into the mahalla's citizens' gatherings [3, p.9].

At the same time, taking into account the priorities of the public interest on the basis of the ongoing reforms in the process of implementation of the Strategy of Action adopted by the Decree of the President of the Republic of Uzbekistan № PP-4947 on 7 February 2017 in five priority directions of further development of the country in 2017-2021 the results of the conversation show that the serious shortcomings preventing the full realization of the reforms are preserved. In particular, the creation of bases for the organization of the executive branch of the executive branch does not provide timely resolution of the problems faced in the development of the regions. The fact that the legal status of the executive authorities (ministries, state committees, agencies, committees, centers, inspections) is not clearly limited does not allow determining the exact role and the role of their role in the state apparatus. The country's public administration system is an integral part of its political, social, legal and administrative culture. Management culture is influenced by a number of historical, national, geographical, spiritual and other factors. Management culture is relatively stable and sensitive to public administration structures. Due to this, it is difficult to

change the history of political (State) culture in a relatively short period of time [4, p.34].

Reform and modernization of public administration are carried out on the basis of the principles and requirements set out in the Constitution and the laws. The broader involvement of citizens in public administration, the ideas of democratic governance have been reflected in a number of international legal instruments. The directions of modernization of public administration are set out in the Action Strategy, which states: "... Decentralization of public administration, gradual reduction of government involvement in government regulation of economic regulation, increase of professional training, material and social welfare of civil servants, reforming the public service system;

introduction of modern mechanisms of public-private partnership aimed at increasing the effectiveness of mutually beneficial cooperation in the implementation of socio-political and socio-economic development of the country;

ensuring openness of public authorities, introducing modern forms of information on rights and freedoms and legitimate interests of individuals and legal entities;

Improving the "e-Government" system, improving the quality and effectiveness of public services, and enhancing the accessibility of the services by the population and business entities [5, p.87].

The goal of reform in the government of Uzbekistan is to ensure the well-being of the population [6, p.3]. As a result of the ongoing and ongoing reforms in this area, it is nowadays that government oversight of improving the living conditions of the people [7, p.2], creating a great deal of openness and transparency in the activities of public authorities in the creation of all conditions for their well - is being implemented. A number of work has been done to ensure the transparency of state power and governance bodies, based on the notion that "not public authorities [8, p.3], but public authorities should serve the public", with the opening of public reception centers, focus on improving [9, p.2].

Nizomulmulk, a senior clerk at the medieval Oriental Revival era in Malicshah's palace (1072-1092), cited the justice of the ruler in his book Siyasatna, saying: "... The king will receive the oppressors two days a week, be punished and heard directly by the words of the Lord. If the Gospel would invite the King to the Crown, listen to their words twice a week, and spread the news that the wrongdoers would be punished in the country, then they would not be frightened by fear of the consequences "[10, p.13].

### Conclusion.

In conclusion, It is necessary to say today President Shavkat Mirziyayev's initiatives are being carried out by the Presidential Councils of the

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Republic of Uzbekistan in all regions of the Republic to hear about the challenges and problems of the 33 million people of Uzbekistan. In addition, the electronic communication service has been established and the Presidential Party is functioning. On the basis of the idea that "public institutions should serve the public, not the public," the focus is on improving the performance of public administration in

order to increase the effectiveness of public services in the country, and administrative reform is being carried out. In turn, the goal of the administrative reform is to improve the public service delivery system and to elevate the public administration system to a new level, taking into account the interests of all segments of the population.

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### SECTION 32. Jurisprudence.

## SOFTWARE DATABASES BASED ON CRIMINOLOGICAL- CRIMINALISTIC CHARACTERISTICS OF CRIMES MADE AGAINST LIFE AND HEALTH OF HUMAN

**Abstract:** forensic scientists have long argued that it is necessary to create a form of accounting for certain types of crimes on the basis of the criminalistic characteristic of a crime. Back in the 1980s. it was proposed to develop a special card to describe the elements of the forensic characteristics of the crimes already investigated. Information about the links between the components of individual forensic characteristics of solved crimes can be used in the construction of versions and, as such, acquires the importance of the most important section of forensic accounting.

**Key words:** software; database; forensic characterization of homicides; criminological characteristics of murder; forensic accounting; the fight against crime.

**Language:** Russian

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### ПРОГРАММНОЕ ОБЕСПЕЧЕНИЕ БАЗЫ ДАННЫХ НА ОСНОВЕ КРИМИНОЛОГО-КРИМИНАЛИСТИЧЕСКОЙ ХАРАКТЕРИСТИКИ ПРЕСТУПЛЕНИЙ, СОВЕРШАЕМЫХ ПРОТИВ ЖИЗНИ И ЗДОРОВЬЯ ЧЕЛОВЕКА

**Аннотация:** ученые-криминалисты давно доказывают необходимость создания на основе криминалистической характеристики преступления формы учета отдельных видов преступлений. Еще в 1980-е гг. предлагалось разработать специальную карточку для описания элементов криминалистических характеристик уже расследованных преступлений. Информация о связях между компонентами индивидуальных криминалистических характеристик раскрытых преступлений может использоваться при построении версий и в таком качестве приобретает значение важнейшего раздела криминалистических учетов.

**Ключевые слова:** программное обеспечение; база данных; криминалистическая характеристика убийств; криминологическая характеристика убийств; криминалистические учеты; борьба с преступностью.

#### Актуальность.

Сегодня как никогда велика потребность в криминалистическом мониторинге, т. е. системном криминалистическом наблюдении и изучении преступной среды, что позволит создать широкую эмпирическую базу для различных исследований, в том числе для разработки новых эффективных методик расследования отдельных категорий преступлений.

#### Методология.

В настоящее время, для обеспечения быстрой обработки криминалистической характеристики преступлений при расследовании применяются автоматизированные процессы, технологии которых основаны на использовании электронных баз данных, а также на современных информационно-коммуникационных системах.

Например, в США на протяжении 25 лет успешно функционирует программа по предотвращению насильственных преступлений

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(VICAP), которая представляет собой базу данных по установлению взаимосвязей между характерными элементами насильственных преступлений. По специальной программе в нее заносятся сведения о всех совершаемых в США тяжких насильственных преступлениях, как раскрытых, так и нераскрытых (соответственно около 15 тыс. и 5 тыс. ежегодно) [1].

Реляционная база данных – это набор нормализованных отношений, которые различаются по именам. Ключевым понятием здесь является понятие отношения, которое в английском языке звучит как *relation*. Программное обеспечение, которое управляет доступом к базе данных, принято называть системой управления базой данных (далее СУБД).

Предшественниками реляционных СУБД были ручная картотека и файловая система, недостатками которых являются разделение, изоляция и дублирование данных, а также зависимость от них. В этом отношении систему следственной деятельности также можно сравнить с файловой системой, но более – с ручной картотекой, ведь опыт отдельного следователя никак не связан с опытом других и сразу же утрачивается, как только следователь уходит из системы. Реляционная модель данных, несмотря на кажущуюся простоту своей логической структуры, базируется на серьезном теоретическом фундаменте что позволяет преодолеть указанные недостатки, прежде всего за счет использования механизма манипулирования данными или языка запросов (Structured Query Language – SQL), который обеспечивает выборку и обновление данных.

База данных спроектирована нами на основе криминалистической характеристики преступлений (далее – КХП). С учетом этого здесь уместно сделать несколько замечаний.

Несмотря на обилие работ о КХП, единого мнения о ее сущности, видах и практической значимости в криминалистике не сложилось, хотя само это понятие было введено в правовое поле еще в 1960-х гг. [2] как справедливо пишет В. П. Бахин, «по теории криминалистической характеристики преступлений имеется множество литературы, но это лишь подходы и основа для разработки рабочего инструментария расследования. А вот в этом направлении пока практически ничего не сделано» [3, с. 180]. Более того, высказывалась и мысль, в частности Р. С. Белкиным, о несостоятельности «фантомности» данной категории [4, с. 233].

Но хотя большинство авторов все же признают теоретическую и практическую значимость КХП [5, с. 24], единства мнений относительно самой сути этой категории у них не сложилось. Так, одни из них полагают, что КХП есть система данных о преступлении,

способствующая раскрытию и расследованию преступления [6, с. 144], другие же считают, что КХП представляет собой вероятностную информационную модель типичных признаков определенной группы преступлений [7, с. 5].

В то же время в литературе выделяют два, три и более видов КХП. Например, Г. А. Густов анализирует общую криминалистическую характеристику преступления; криминалистическую характеристику конкретного преступления [8, с. 46]. И. Ф. Крылов также полагает, что «... криминалистическая характеристика может (и должна) быть трех степеней (уровней): а) общая характеристика всех видов преступлений; б) характеристика группы или вида преступлений; в) характеристика конкретного преступления. И. Ф. Пантелеева же считает, что «существует криминалистическая характеристика вида (группы) преступлений, а также отдельного, конкретного преступления, но не преступления вообще» [9, с. 26].

Диаметрально противоположной позиции придерживаются Р. С. Белкин, И. Е. Быховский, А. В. Дулов, категорически отрицая существование криминалистической характеристики конкретного преступления. Они пишут: «Поскольку речь идет о научной абстракции, научном понятии, нет и не может быть криминалистической характеристики конкретного преступления» [10, с. 57].

Причину такой резкой поляризации подходов к определению сущности КХП еще в 70-х гг. прошлого столетия объяснил Л. Я. Драпкин: «Несовпадение взглядов различных авторов, неточности предлагаемых формулировок отражают прежде всего исключительную сложность и многогранность исследуемого объекта, многообразие связей между его структурными элементами» [11, с. 12].

Не вдаваясь в указанную дискуссию, отметим, что мы придерживаемся определения, данного Е. П. Ищенко, который считает, что криминалистическая характеристика убийств – это «система взаимосвязанных обобщенных данных о наиболее типичных признаках, проявляющихся в способе и механизме убийства, обстановке его совершения, личности преступника и других сторонах этого преступления, сведения о которых важны для практического решения задач расследования» [12, с. 466].

Кроме того, мы согласны с необходимостью составления криминалистических характеристик конкретных преступлений. Как правильно отметил В. В. Бирюков, нельзя создать криминалистическую характеристику вида или группы преступлений без кропотливого, детального анализа расследования каждого конкретного преступления – сложнейших систем, на которые она опирается [13, с. 33-35].

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На наш взгляд, чтобы обеспечить выполнение основной прикладной функции КХП – раскрытия конкретных преступлений – она должна быть представлена в виде электронной базы данных, позволяющей трансформировать каждый ее элемент в активное поисковое поле, связанное со структурой КХП в целом. Это позволит извлекать и актуализировать опыт расследования преступлений с учетом особенностей того района, населенного пункта и региона, где ведется база данных, а в итоге – выделить и использовать как криминалистическую характеристику конкретного преступления и отдельных ее элементов, аналогичных или схожих с вновь совершенным убийством, так и видовую его криминалистическую характеристику в целом. То есть применение базы данных позволяет использовать все виды КХП: и конкретного преступления, и вида преступлений.

П. Ю. Фесик справедливо, на наш взгляд, считает, что в базе данных КХП предстает на трех уровнях: элементы КХП, из признака, значения (градации) признаков [14, с. 39-44]. Действительно, каждый уровень КХП детализирует ее содержание, переходя от общего к частному, что неизбежно при конструировании любой базы данных, поскольку каждая запись (в терминологии баз данных – атрибут) в ее структуре должна содержать значения одного признака, чтобы имелась возможность сравнивать их между собой. Например, признак обстановки «характеристика места происшествия» конкретизируется в значениях город, квартира, улица и т. п.

На наш взгляд, важно, чтобы список значений не был фиксированным, мог свободно дополняться развивая и дополняя базу содержание КХП конкретными значениями, касающимися поведения преступника в пред- и посткриминальных ситуациях, а также в ходе самого преступления, по которым возможно установить его личность [15, с. 16].

Здесь мы используем подход, заключающийся в переходе от типичных версий к накоплению сведений о реальном поведении преступников до, в процессе и после совершения убийств.

Например, Г. А. Кокуриным сформулированы типичные версии о предполагаемых объектах – носителях криминалистической информации, выдвигаемые в поисковых ситуациях проблемного характера:

1) Преступник ранее совершал аналогичные преступления, изучение дел о которых позволит получить дополнительную информацию поискового характера;

2) Преступник появится в данном районе, в том числе на месте происшествия;

3) В районе совершения преступлений могут находиться следы и объекты-носители криминалистической информации;

4) Преступник может совершить новое преступление, в том числе в определенных микрорайонах;

5) В районе, где совершались преступления, вероятно можно установить источники информации о латентных преступлениях, совершенных тем же неизвестным преступником;

6) Преступник проживает в данном районе, местности;

7) Преступник собирается сбыть похищенное, в том числе через известных сбытчиков;

8) Преступник собирается покинуть этот район или уже выехал из него;

9) Преступник относится к группе гастролеров и появится в городе (населенном пункте) в определенные периоды (дни недели, месяца и т. д.) [16, с. 101-102].

Мы считаем, что в базе данных необходимо конкретизировать каждую такую версию в виде элементов, содержащих сведения о том, например, в какое время и на какие аналогичные преступления (иные правонарушения) совершало лицо до и после убийства, в какое время преступник появлялся в районе или непосредственно на месте происшествия и т. д. (ниже, при описании элементов разработанной нами базы данных мы привели содержание таких элементов поведения преступника).

Тот же подход был применен при формировании всего блока пред- и посткриминальных ситуаций, чтобы на основе этих сведений можно было не только выдвинуть типичную версию, но и разработать алгоритмы по получению искомой информации о личности преступника с указанием, когда, где и как ее возможно получить.

Рассматривая возможность программного обеспечения базы данных на основе криминалистической характеристики убийств и непосредственно связанного с этим элементом - личностью преступника, нельзя упомянуть о криминологической характеристики лиц, совершающих убийство.

Так по мнению Ю. М. Антоняном, указанные преступники плохо отличают социальную приспособленность, общее неудовлетворенное оценивание своего положения в социуме. Ярко выраженная импульсивность, проявляемая в снижении самоконтроля над своим поведением, необдуманными поступками, эмоциональной незрелости, и инфантилизме. Нравственные и правовые догмы не могут оказать на их поведение существенного влияния. Данная категория людей обычно или не понимает, чего от них добивается социум, либо понимает, но в силу нежелания эти

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требования не выполняют. В силу нарушения или деформации нормативного контроля, они способны оценивать социальную ситуацию не основываясь на нравственных и правовых требованиях, а исходя из субъективных переживаний и обид.

Простыми словами, на лицо стойкое деформирование социальной адаптации. Им характерны также нарушения в сфере общения:

- они неспособны устанавливать контакты с окружающими людьми;

- они не умеют и не хотят понимать точки зрения других;

- не желают смотреть на себя со стороны.

Это в свою очередь снижает возможность адекватной ориентации, продуцирует возникновение аффективно насыщенных идей, связанных с представлением о враждебности со стороны окружающих людей и общества в целом. Все вместе взятое формирует такие черты, как погруженность в себя, замкнутость, отгороженность, с одной стороны, и агрессивность, подозрительность – с другой. В результате правильная оценка ситуации еще более затрудняется, поскольку поведением управляют аффективные установки, а поступки окружающих рассматриваются как опасные, угрожающие личности, что приводит к противоправным способом выхода из сложившейся ситуации. Психологический профиль насильников характеризуется такими чертами, как склонность к доминированию и преодолению препятствий. У

них самая низкая чувствительность в межличностных контактах (черствость), и в наименьшей степени выражены склонность к самоанализу и способность поставить себя на место другого. Интеллектуальный контроль поведения такой же низкий, как и у корыстно-насильственных преступников. Им присущи также импульсивность, ригидность, социальная отчужденность, нарушение адаптации [17, с. 45].

### Вывод:

Таким образом, очевидно, что потенциал использования базы данных намного шире, чем составление вероятного портрета преступника в программе «ФОРВЕР». На наш взгляд, в базе должны аккумулироваться в единую структуру и КХП, и характеристики деятельности следствия, и раскрытые, и нераскрытые преступления, чтобы сформировать не только вероятный портрет преступника (это важный, но лишь первый шаг в установлении убийцы), но и конкретные сведения о его вероятном местонахождении и поведении, на основе которых можно составить систему алгоритмов (программу) по установлению его личности.

В перспективе в эту же базу могут войти данные иных криминалистических учетов, прежде всего следов рук, ДНК и др. На наш взгляд, именно по этому пути – дальнейшей интеграции в единую систему баз данных криминалистически значимой информации – должна пойти практика борьбы с преступностью.

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## GAS-CHROMATOGRAPHIC APPRAISAL OF APPLICATION OF APRICOT OIL AND AEVIT IN COMPLEX THERAPY OF VITAMIN D- DEFICIENCY RICKETS IN CHILDREN

**Abstract:** Significant disturbances in the metabolism of higher fatty acids have been revealed by the method of gas-liquid chromatography in children with vitamin D-deficiency rickets. Correction of impaired lipid metabolism by combined application of vegetable oil (apricot) and aevite was performed. The efficiency of the presented method of treatment is shown in the form of a table.

**Key words:** rickets, dismetabolism, fatty acids, apricot oil, Aevit, traditional treatment, modified method of treatment.

**Language:** English

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### Introduction.

In recent years, gas chromatography is one of the methods for determining markers of metabolic processes in the human body. In this regard, a special place is taken by fatty acids, the determination of which is easily carried out by gas-liquid chromatography.

We developed a technique for the determination of fatty acids under various pathological conditions,

which includes the selection of a stationary phase [13]. Individual identification of the components of the mixture is carried out on the basis of structural-group components [13]. This technique was used to study the fatty acid composition of blood serum in children with pneumonia, hypotrophy, rickets and studied the features of lipid metabolism in patients with vesicovaginal fistula were studied [12]. The application of this technique to assess the

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effectiveness of the combined use of vegetable oil and antioxidants in the integrated treatment of rickets is relevant from the point of view of the choice of correction.

Rickets is not only a pediatric, but also a medical and social problem, the essence of which lies in the disturbance of the general metabolism, phosphorus-calcium, lipid metabolism, skeletal mineralization disorders and the functional state of internal organs and systems [1-5,8,11].

Purpose of the study. Gas chromatographic evaluation of the use of apricot oil and Aevit in complex therapy of vitamin D-deficiency rickets in children.

### Material and methods of investigation.

To fulfill this goal, we examined 87 patients with vitamin D-deficiency rickets in Children's Polyclinic No. 1 in Samarkand. The control group consisted of 16 practically healthy children.

The history was collected by interviewing parents of children with the introduction of the data into specially designed individual patient's cards. We assessed the somatic and obstetric-gynecological history of mothers, the family life conditions, the characteristics of the course of pregnancy, childbirth and the neonatal period, the nature of feeding, the state of specific prevention of vitamin D-deficiency rickets. We took into account the dynamics of the mass-growth parameters of the child, the diseases that were transferred, the risk factors predisposing to the development of vitamin D-deficiency rickets, both from the mother and the child.

Clinical evaluation of the examined children with vitamin D-deficiency rickets was carried out on the basis of studying the general condition, musculo-skeletal, nervous system and psychomotor development. Criteria for assessing the degree of hypotrophy were weight and height, taking into

account the severity of the subcutaneous fat layer on the abdomen - at the level of the navel, the sequence of its decrease, turgor of tissues, skin color and visible mucous membranes, anthropometric data, taking into account the Chulick, Erisman and Tour indices.

The composition of higher fatty acids in the blood serum in children with vitamin D deficiency rickets was determined by gas-liquid chromatography [7,9,10]. To identify the separated methyl esters of fatty acids, the method of "witnesses" and the method based on the structural-group constituents "sorbent-sorbate" [4] were used. As a result of identification in the serum, the following fatty acids were found: C(16:0) - palmitic, C(16:1) - palmitoleic, C(18:0) - stearic, C(18:1) - oleic, C(18:2) - linoleic, C(18:3) - linolenic and C(20:4) - arachidonic. The content of fatty acids was determined by the method of internal normalization [9].

### Results of the study and their discussion.

The patients were divided into 2 groups. I-group of children (38 patients) with rickets received a traditional method of therapy. The results of the study are presented in Table 1.

The II group of examined children with rickets (49 patients) received apricot oil and Aevit against the background of the traditional method of treatment. The results of the study are presented in Table 2.

The study of the composition of higher fatty acids in the blood serum in children with rickets (Group I - 38 patients with rickets) undergoing the traditional method of treatment (Table 1) and Group II (49 patients with rickets) in combination of the traditional method of treatment with the use of modified therapy was carried out (Table 2).

The results obtained to determine the content of higher fatty acids in blood serum of children with rickets in comparison with the data of healthy children are presented in Table 2.

**Table 1. Compound and content of fatty acids in blood serum of children with rickets.**

Fatty acids	Control	During research	P<
C (16:0)	28,17±1,37	30,87±1,53	0,01
C (16:1)	2,70±0,22	1,38±0,64	0,05
C (18:0)	26,13±1,32	28,03±1,04	0,01
C (18:1)	0,90±0,13	0,66±0,6	0,01
C (18:2)	33,32±2,51	29,73±2,34	0,05
C (18:3)	2,41±0,45	2,58±0,50	0,01
C (20:4)	3,56±0,60	2,68±0,60	0,01

Note: P - the reliability of the difference between the indicators in the group of patients and healthy persons.

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**Table 2. The compound and content of fatty acids (in %) in blood serum depending on the method of fatty acids treatment.**

Fatty acids	Control	Method of treatment			
		Traditional		Modified	
		M±m	P<	M±m	P<
C (16:0)	28,17±1,37	28,96±1,28	0,01	28,21±1,31	0,1
C (16:1)	2,70±0,22	1,62, ±0,43	0,01	2,55±0,30	0,1
C (18:0)	26,13±1,32	27,67±0,82	0,20	26,75±0,80	0,1
C (18:1)	0,90±0,13	0,76±0,10	0,20	0,92±0,10	0,1
C (18:2)	33,32±2,51	30,74±2,10	0,50	33,12±1,80	0,1
C (18:3)	2,41±0,45	2,11±0,45	0,05	2,73±0,45	0,1
C (20:4)	3,56±0,60	2,10±0,51	0,05	3,26±0,40	0,1

Notes: P- of relatively healthy children.

As can be seen from the data given in children with vitamin D deficiency rickets, the content of fatty acids such as palmitic, stearic and linoleic acids is increased, and palmitoleic, oleic, linolenic and arachidonic acids are reduced, i.e. there are disturbances of the studied indicators of lipid metabolism, which proves airmenaimpt of lipid metabolism in rickets. This dictates the need for correction of lipid metabolism in this pathology with the inclusion of vegetable oils.

For the selection of vegetable oil, we have estimated the digestibility of vegetable oils by the organism to lipase activity of blood serum. The conducted studies showed that the lipase activity of blood serum in the control group (10 children) was  $10,2\pm 3,6 \mu\text{mol} / (\text{l}\cdot\text{min})$ . When used in a diet of cottonseed oil, it was equal to  $10,5\pm 4,1 \mu\text{mol}/(\text{l}\cdot\text{min})$  (n=25), i.e., there was no noticeable change in this group. When giving the rye oil, it was  $16,8\pm 4,2 \mu\text{mol}/(\text{l}\cdot\text{min})$  (n=22), the sea-buckthorn oil was  $18,9\pm 3,7 \mu\text{mol}/(\text{l}\cdot\text{min})$  (n=22), and when the children were given the apricot oil, the lipase activity of the blood serum increased significantly and amounted to  $20,7\pm 3,9 \mu\text{mol}/(\text{l}\cdot\text{min})$  (n=18). From the data obtained, it can be seen that the use of apricot oil leads to 2 times improvement in the digestibility of lipids by increasing the activity of serum lipase and thereby improves the indices of lipid metabolism.

In this connection, apricot oil is used as a substance that corrects the disturbed lipid metabolism, as it is rich in polyunsaturated fatty acids, has a pleasant smell and taste, has a high biological activity and has a beneficial effect on metabolic processes in

the child's body [5,6]. As an antioxidant Aevit was used.

In the examined children, the ill with rickets, who received traditional treatment, there was a wide range of fluctuations of the studied indicators of lipid metabolism.

In our opinion, the lipid imbalance is probably due to the fact that the effect of specific therapy in the body is primarily aimed at correcting the phosphorus-calcium metabolism, sonormalization of the studied indices of lipid metabolism did not take placethat required their further correction.

As can be seen from Table 2, performed method of treatment showed its high efficiency, which is confirmed by the obtained data: C(16: 0)-28.21 ± 1.31%, C(16:1)-2.55±0,30%, C(18:0) -26.75±0.80%, C(18:1)-0.92±0.10%, C(18:2) -33.12±1.80% ; C(18:3)-2.73±0.45%; C(20:4)-3.26±0.40%, i.e. under the influence of the modified treatment, the fat-acid compound parameters were normalized in the majority of patients.

### CONCLUSIONS.

1. It was revealed that in children with rickets, there is a significant difference in the indices of individual fatty acids in comparison with those of healthy children.

2. In order to correct the dismetabolism of higher fatty acids, besides to traditional therapy, an additional prescription of apricot oil and Aevit is recommended, which ensures high effectiveness of therapy in children with rickets.



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## DISTINCTIVE FEATURES OF REGIONAL TOURISM DEVELOPMENT

**Abstract:** The article focuses on the peculiarities of regional tourism development, highlighting socio-economic aspects of regional and regional tourism concepts. It also deals with regional tourism with its economy, society and nature, the direct impact of tourism on the development of the region, and the establishment and sale of products in regional tourism.

**Key words:** tourism, region, gross domestic product, service, tourist route, regional tourism, service, transport, export, tourist resources.

**Language:** English

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### 1. Introduction

As an independent network of modern tourism economics, it occupies a leading place among the world's most profitable industries. It is well known that the world practice is now regarded as the oil extraction and processing industry and the post-automotive sector in terms of profitability and sustainable growth in the tourism industry.

According to the World Tourism Organization (UNWTO), tourism is the world's fourth largest exporter of goods and services, and third in revenue. Its share in the world GDP is 10%. These figures show the direct economic effectiveness of tourism industry

The tourism industry has grown rapidly in the last 30 years. During this time, the number of international tourists increased 3.8 times, and the profit from this industry grew 25 times. Currently, tourism accounts for 10 per cent of the world's gross domestic product, 7 per cent of international capital, 16 per cent of jobs, and 12 per cent of world consumption. Today, tourism is a very powerful branch of the global economy, with a large number of staff, major equity and major capital investments involved. Tourism is a large-scale business, with huge money and global policy [1].

As can be seen from the information above, tourism is now an important component of the economy and has a practical impact on all sectors of

the national economy. At the same time, its socio-economic significance is shaped as a powerful network that enhances the quality and quality of dignified people. Thus, one of the most pressing issues of today is the development of tourism at a steady pace, raising it to new levels, forming modern tourist infrastructure, increasing the range of tourist services, improving service quality, maximizing tourist potential of the regions.

### 2. Main part

Tourism industry is one of the sectors of tourism in the national economy of the Republic of Uzbekistan, which is rapidly developing and providing currency flow to the economy of the country.

After the independence of our country, the development of this sphere has begun at the state policy level, and nowadays the legal framework for the development of tourism is being created and great work is underway.

Uzbekistan has all the opportunities for the rich tourist potential and the development of tourism, and the Presidential decrees and resolutions have been adopted and implemented for the development of tourism in our country. Decree of the President of the Republic of Uzbekistan Sh.M.Mirziyoev on February 3, 2018 "On additional organizational measures to create favorable conditions for the development of tourism potential of the Republic of Uzbekistan",

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dated February 6, 2018 " On Measures for Further Improvement of the State Committee for Tourism Development of the Republic of Uzbekistan "No. PP-3509" On additional organizational measures to create conditions", PQ-3510, February 7, 2018 "On measures to accelerate the development of domestic tourism", PF-5611 "On additional measures to accelerate the development of tourism in the Republic of Uzbekistan" of January 5, 2019 could be included in this decree.

In our country, the development of this sphere is at the level of state policy and a number of work is underway. In particular, as a result of measures to stimulate small businesses and private entrepreneurship, the number of tour businesses has been increasing, and tourism services in the services sector have been interpreted as a modern service, with a focus on public policy.

Tourism creates opportunities for people to enjoy and relax. So tourism is the most important thing to satisfy the pleasure of the person for pleasure and pleasure. But it is noteworthy that tourism is not a product of the most vital need for tourism, but at a certain level of human income and at the same time as it may be at leisure and time.

Tourism is characterized by temporary movement from one region (district, city, country) to another, unless it relates to the change in the living and workplace. Tourism is a process related to holidays, treatment, cultural, scientific and business meetings. Realization of services in the sphere of tourism is carried out as a commodity.

The tourism potential of the local population and foreign citizens on the history, historical architecture of the country, the local population's traditions, traditions and ceremonies, along with their relaxation and treatment, has a direct positive impact on the country's economy.

Tourism is a leading industry in the country, and it promotes the development of some forms of

economic activity that is collaborating with tourism. The purpose of tourism in the educational aspect is that people gain knowledge and experience as a result of traveling, and they will endure hardships, overcome difficulties, overcome and appreciate the country, respect the world outlook and traditions [2].

In the region the production of tourist goods and services is carried out jointly with other sectors and branches, ie national tourist products are formed and realized. As a result, the share of tourism in the GDP and the country's balance of payments is constantly increasing.

Tourism serves as a major catalyst for the economic growth of the region and countries, and positively affects the economy of the countries.

In addition to tourism, it also carries out a number of social functions, such as the restoration of labor skills of the population, the establishment of large-scale production, cultural awareness and the aesthetic development of society.

### 3. Discussions and results

In addition to tourism, tourism also carries out a number of social functions, such as the restoration of the working capacity of the population, the establishment of production, cultural awareness and aesthetic development of society

Tourism has a direct positive impact on the economies of the region and countries and serves as the main catalyst for their economic growth (Figure 1).

When a tourist intends to go somewhere, he compares the other types of services available there and chooses what he likes. Ordered and purchased by tourists includes the services of the tourist area, where the tourist services are offered. Tourist region is different from other places by attracting tourists with its attractiveness.

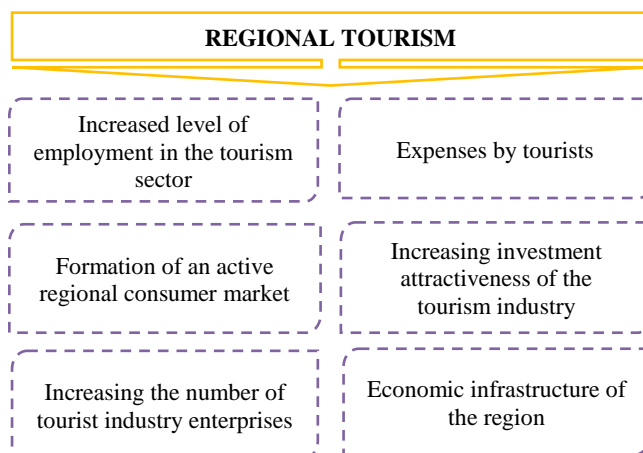


Fig. 1: Direct Impact of Tourism on Regional Development <sup>1</sup>

<sup>1</sup> Муаллиф ишланмаси

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The BTT describes the tourist region as an area where special resources and services are available for holidays and recreation. From this perspective, we can conclude that regional tourism is a place where resources for the future of tourists and the infrastructure to facilitate their arrival are considered.

Touristic region can be considered in view of tourists' demands. Tourists can visit this area again once they get a touristic motivation. In practice, the tourism industry reflects the following parameters: accommodation, location and location of resources, attractive view of the area and facilities and excursions.

The concept of regional tourism is related to the following aspects: firstly, the distribution of recreational resources, the recreational needs of the local population, and the level of satisfaction in a particular area, as well as the ability to attract foreign tourists. Secondly, the level of recreational development in the region indicates a region that sets socioeconomic conditions that can encourage or limit the role of the region and tourism in the domestic and world tourism markets.

The first approach basically reflects the idea of potential tourism development, the second is the result of tourism activity in the region, which allows it to be included in a separate segment of the tourist market. As a result, the tourist area is evaluated from the point of view of holiday organizations and local or leisure travelers.<sup>2</sup>

As far as the concept of the region and the "regional tourism" is concerned, the meaning of this term is explained by scholars in various sociological and economic geography, such as regional economics, the theory of public administration, and politology. In most publications, the word region is primarily referred to a region with the same natural conditions, specific economic, demographic, historical conditions, and industrial and social institutions specialized in certain types of industry.

In general, according to the study of scientific literature, the term "region" can be used in various meanings, depending on what dimension of life it describes.

Region (from lat. Regio - region), a vast area corresponding to several regions (districts) or several countries, united by economic, geographical, cultural, historical or other features and conditions of life. The complex socio-economic and political system with fuzzy system-forming features, in structural terms, basically coincides with the national-state structure of the world and the national-territorial division of the country. For the region it is peculiar to the socio-territorial community of people and countries that has

its own interests, including in the field of regional security<sup>3</sup>.

Scientists of our country have described the concept of "region" on different approaches and gave their scientific conclusions. For example, Professor I. Tukhliev, in his scientific work, described the region as "a geographically divisive part of a large region that is formed when one or more criteria apply to a particular region" [3].

O. Akhmedov and N. Bakhriddinov are a regional geographical, historical, national and cultural unity, religious-etiquette, socio-economic development, administrative system at various stages of development, as well as socio-economic and environmental problems. the territorial unit [4], which necessitates joint co-operation.

When commenting on the concept of the region, it is not expedient to justify its economic aspects - the specialization of farming, the location of the labor force and the development of integration processes. In this regard, it is important not to ignore the interest of the population as a social community. Because of the social and economic interest of the region, the growth of employment and living standards for the population, social and economic protection, education, culture, promotes the development of ethnic identity.

It is noteworthy that today, the promotion of regional tourism plays an important role in our country. At the same time, the region is one of the pressing issues of studying regional tourism concepts, studying regional potential of our country, analyzing trends in tourism development in the regions (Adams, 2004; Manhas, Kour, & Bhagata, 2014; Scheyvens, 2002).

L.V. Kovineva believes that tourism is closely linked to many sectors of the regional economy and it is expedient to consider "regional tourism" in three dimensions - geographical, socio-economic and environmental aspects. According to the above, the tourist region can be defined as a separate territorial unit united by nature, which has its own physical, ecological, economic, ethnic, historical, political, administrative and legal features [5].

EA Zaliznyak Regional tourism is a region where tourism, infrastructure, ecological and personal safety, and many other elements, which are interconnected, serve as a necessary condition for the satisfaction of tourist needs. .) is a highly complex, organized system [7].

<sup>2</sup> <http://www.uniquegeo.ru/unigos-898-1.html>

<sup>3</sup> "Национальная Политическая Энциклопедия". [politike.ru/termin/region.html](http://politike.ru/termin/region.html).

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The territory offering a set of services does not always have an explicit set of limits. It can be a tourist center with all the necessary material and technical basis for organizing a part of the region and recreation. This area can cover any region, country, or even a group of tourists (Fauziah & Aryanto, 2012; Luong, 2002; Studies & 2009, n.d.).

The BTT defines the tourist area as a region with a great network of special facilities and services needed to organize the recreational process. Depending on this feature, the touristic region must be considered as independent and must have all the conveniences necessary for tourists to stay there. That is, tourist destination is determined by tourist

attractions and services selected by tourists and tourists.

The Encyclopædia Britannica describes regional tourism as "tourist-oriented, to the continent of the region of the sovereignty of the country, or to the territory of the territory of the United States of America, the tourism industry and the tourism industry."

Formation and sales of tourist goods in regional tourism are carried out within the enterprises of this region. Among such undertakings the following can be included (Figure 2).

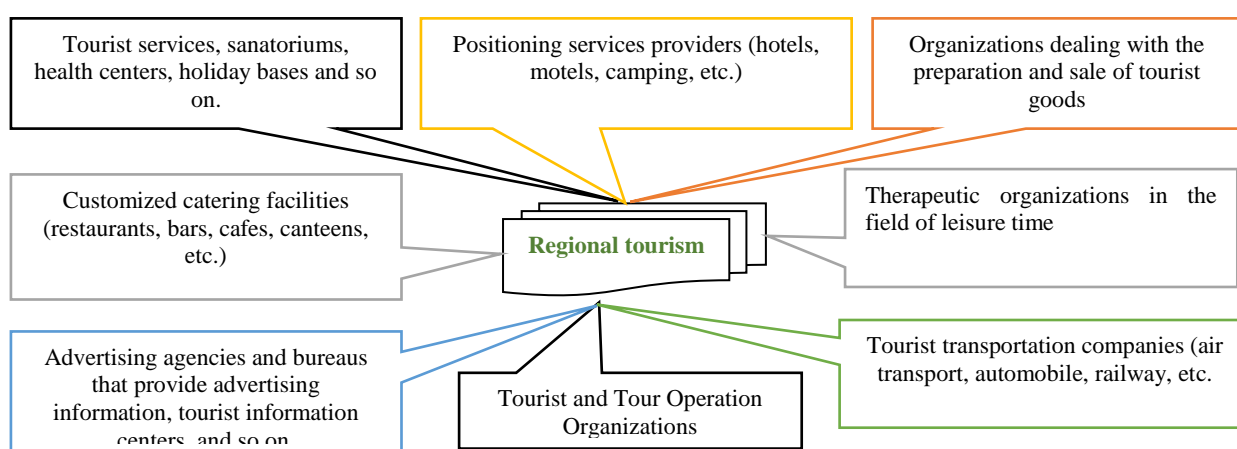


Fig. 2. Enterprises and organizations for the production and sale of products in regional tourism

The main result of the tourism development in the region is the attraction of tourists to their leisure time. During touristic trips, tourists spend more money than their normal lifestyle, so the tourism industry will provide the local market with additional currencies and improve the regional balance of payments.

#### 4. Conclusion

In summary, we can say that the region is a region bordered by a group of countries or provinces.

Regional tourism is a regional tourism that provides touristic services, which is of particular interest to tourists, with the opportunity to meet the needs of tourists using natural, climatic, cultural and historical resources, entertaining or other complexes.

The region does not need to have clear borders, as the region can cover any region, even a group of countries. The Tourist Zone is the place where sightseeing and tourist attractions and services are adapted by tourists or tourists.

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## CURRENT STATE OF USE OF INFORMATION AND DISTANCE LEARNING TECHNOLOGIES IN THE DEVELOPMENT OF SKILLS IN THE ELECTRONIC INFORMATION ENVIRONMENT OF TODAY'S ECONOMISTS

**Abstract:** The article addresses the issues the content of advanced training of economists in the electronic information environment and improvement of quality requirements based on modern approaches, periodically during professional activities and issues of improving the methodology of lifelong learning. In addition, forms of distance learning, distance learning methods and the importance of these methods.

**Key words:** forms of distance learning, lectures, consultations, laboratory work, exhibition experiments, observation, independent work, webinars, distance learning methods, abstracts, information gathering method, reproductive method.

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### Introduction

Development of modern information-communication and distance learning technologies and interactive methods of teaching in the educational system, as well as in the developed countries of the world, the provision of modern educational and laboratory equipment, curricula, teaching and methodological literature to the international standards, in particular, with the use of advanced pedagogical and information-communication technologies.

It is crucial to ensure that communication is in conformity with the educational practice and the development of mechanisms for the timely introduction of advanced pedagogical and information technologies in the process of developing the skills of economists in the electronic information environment.

The First President of the Republic of Uzbekistan I.Karimov emphasized the importance of modern information and communication technologies. it is not difficult to be able to see and understand the example of his experience."

During the years of independence, educational institutions were equipped with computers, Internet access, Ziyonet network and electronic

communication. As a result of these efforts, the modern information and communication technologies (ICT) tools have been introduced to the educational process, as well as new methods of teaching the modern requirements in the field of modern information technologies (Carter, Gartner, & Reynolds, 1996; Kalpakjian & Schmid, 2014; Welch & Yang, 2011).

### Research background

The Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On further improvement of the system of retraining and improvement of professional skill of the pedagogical staff" from February 16, 2006 №2 "is based on the interactive methods of teaching, modern pedagogical approach aimed at stimulating the critical and creative thinking of pedagogues using the global Internet network and introduction of information technologies "and" Scientific and methodological basis of retraining and professional development of pedagogical staff " and "development and introduction of distance learning in the system of retraining and advanced training of personnel".

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In order to ensure the implementation of these tasks, it is planned to develop the scientific and methodological foundations of the economics in the electronic information environment and to use interactive methods of teaching directed to the development of critical and creative thinking of teachers, as well as modern pedagogical, information and distance learning technologies, the development of educational and methodological support for the development of education is crucial sb leads.

### Main part

The Strategic Action Strategy of the President of the Republic of Uzbekistan for five promising areas of development of the Republic of Uzbekistan for 2017-2021 set out the task of "Deeply studying the quality of education in the educational institution, such as economics, information technology and deep study of the most demanding subjects."

The adoption of the Resolution of the President of the Republic of Uzbekistan from September 14, 2017 "On establishing a specialized school for the deepening of knowledge in the field of information and communication technologies named after Muhammad al-Khwarizmi", accelerated development of modern information and communication technologies in this area has made the training of qualified personnel an extremely important task. The introduction of communication technologies in foreign countries in all sectors of the economy has a significant impact on the socio-economic and economic development of the country (Alsos & Clausen, 2014; BOBUR et al., 2015; Eastman & Burgess, 2009; Mukhtarov, Fox, Mukhamedova, & Wegerich, 2015).

Positive growth of the economy leads to the introduction of new investments in the sphere of information and communication technologies. The most important investment is the training of personnel and their devotion to youth.

The establishment of a specialized school for deeper and deeper education in the field of information and communication technologies named after Muhammad al-Khwarizmi, our great ancestor, is the first step towards this goal.

In recent years, major reforms have been carried out in the Republic of Uzbekistan to introduce modern information and communication technologies into all areas of society, including public administration, society, education, and public services.

Establishment of this school will help to train the cadres who will be able to respond to this call of the

age, prepare specialists who meet the requirements of the field and meet the requirements of the age.

Implementation of these tasks includes laboratory work, demonstration experiences, solving issues in the process of integrating natural and virtual forms of education in the process of education, development of the requirements for education based on modern approaches, the development of modern information and communication technologies in all areas of society, government, society, education, and healthcare, as well as the study of national and global achievements in the provision of public services. up to date.

From the world experience analysis, it can be seen that the following economics need to address the following problems in the organization and implementation of distance learning in the electronic information environment: [3, 5, 6].

1. Distance learning is a specific form of teaching which is distinguished by the use of a set of specific teaching methods, methods, tools and forms that are primarily used by ICT tools. In order to receive distance learning, ICT should be able to apply the required level of education and be able to access electronic textbooks, e-learning manuals, virtual laboratory works and the internet.

2. In contrast to conventional forms of education, it requires training of specialists in distance learning institutions. The distance learning system technician is required not only to become an ICT expert and to be a technology expert in distance learning courses.

3. In the introduction of distance learning at the educational institution it is necessary to develop the curricula and materials of distance learning and the technology of teaching. Creating a remote course is complicated and time consuming. Methodist, teacher and programmers should work together in organizing it. This year's economists need to use advanced training courses, curricula, advanced forms, methods, tools and technologies for teaching and learning on the basis of national requirements for the content and quality of foreign experience and cadres.

4. The use of distance learning in the system of professional training of economic personnel is of the utmost importance, in addition to the personal, professional knowledge of the future staff, they should be prepared to use this form of education in their practice.

In the development of the content of distance learning, it must be based on a competent approach aimed at practicing the knowledge gained in practice. This is because the students are trained on the basis of State educational standards based on a competent approach, which required

5. The specifications of the subject matter in the field of distance learning should not only define the content and structure of the teaching, but also be reflected in the chosen model of instruction. It is



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necessary to develop a clear model of the educational process. This model should be aimed at ensuring the peculiarities of the teaching, the requirements for the content and quality of education.

6. In the distance learning, there are additional normative documents in the pedagogical institutions that include teachers' loads (learning curricula, curriculum oversight, counseling, etc.). Availability of these documents will have a positive effect on the effectiveness of distance learning.

### **Institutional basis of the research**

It is necessary to develop normative documents regulating distance learning, government requirements, basic curriculum, and curriculum.

In our opinion, the above problems encountered in the implementation of distance learning can be effective only when a positive solution is found.

In particular, many are highly appreciating the teaching of modern humanitarian, lifestyle experiences, collaborative learning, individualization of the educational process, and self-actualization [4].

The general requirements for the organization of training on the above principles include the following: Compilation of methodological recommendations (explanation, knowledge, design, reflection, etc.), individualization and intellectualization of methods and rules of study, humanization of knowledge, creative adoption of the educational material, communicative and informatics of didactic means, high motivation for teaching a high level of awareness of the audience.

Nowadays, education is a form of distance education that fully meets these requirements.

### **Forms of distance learning.**

The traditional form of education, classroom, has the most prominent forms of teaching, such as lectures, seminars, laboratory workshops, practical exercises, problem solving, demonstration experiments, supervision, qualification, test scrutiny, counseling and independent work. All of them have a place in the distance learning system.

We will consider some of the features of using the above-mentioned training forms.

The lecture is a basic form of training for the theoretical preparation of learners. Requirements such as the generality of the subject matter of the distance education, such as the scientific, publicity, the form and the content, the relationship with other types of training, remain.

There are different approaches to reporting in the distance learning system. The answer is "Electronic Speech". The Electronic Speech also includes lecture texts, including supplementary materials - scientific articles, manuals, laboratory works, demonstrative experiments, methodological recommendations and other learning materials. Electronic Speech provides

the audience with the opportunity to think, analyze, analyze, and repeatedly repeat the text.

Consultations - this can be one of the individual and group interventions, one of the exercises in the way of working with the audience and assisting them in the study of learning materials. During the consultations, attitudes, attitudes, thinking, thinking skills, from the personal characteristics of the listener, are influenced by intellectual, moral qualities, especially the mind and psychological traits.

Consultations with tutors and listeners on complex or actual issues of teaching methodology in distance learning are mainly carried out by phone, e-mail, web site.

Laboratory Work, Demonstration Experiments, Solving Problems. This type of workshop is of great importance in the process of teaching.

The practical application of the knowledge gained in practice can only be thoroughly mastered on the basis of theoretical knowledge, experiments, laboratory work and solving issues. Therefore, while providing theoretical knowledge, laboratory work, demonstration experiences, organization and dissemination of these issues are essential components of the learning process to consolidate, deepen, extend and implement these knowledges.

There were some problems with practical training in the research process. In particular, all educational and laboratory equipment provided at the distance learning centers is designed to organize and conduct classes in classroom form. These sessions need to be organized and organized in virtual form. This indicates that we need to conduct separate research.

### **Controls.**

The control over the distance learning process is related to examining the results of theoretical and practical learning of the study material.

Based on the experiences in this area, many experts choose a test for knowledge assessment and emphasize the possibility that a large number of trainees have the opportunity to demonstrate their knowledge and skills in the same way. Some experts also agree with the test questions, exercises, and assignments.

In our opinion, the evaluation can be a prerequisite for the test, but it can not be the only system for evaluating economic competence and professionalism. Different evaluation forms were used in the distance learning course during the research. Such forms of evaluation include diagnostic questions, exercises and assignments for self-examination.

### **Independent work.**

This is a well-known form in the traditional education system. However, it is essential for distance learning that the independent work of the audience

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may be individual, dual or grouped. It is known from experience that the process of self-organization of the group members in the process of independent work, showing its positive aspects.

To be effective in the distance learning courses, it is necessary to have independent learning skills, independent study materials and planning methods.

**Webinar** is the way to interact with the audience through the Internet using special software [2]. The term "webinar" is derived from the English word "webinar" and represents a seminar through a network [2, 3 b].

At the distance learning course, the technicians will be able to present a variety of notes and drawings on the subject of the seminar on a virtual web page, including presentation of text documents, various multimedia tools, virtual labs during the webinar, as well as working in traditional electronic format will be created (Kalpakjian & Schmid, 2014; Sobirov, 2018).

### Methods of Distance Education.

The industry specialists classify the techniques used in the distance learning process and incorporate all techniques into the following 4 groups.

1. Methods for ensuring the independent learning of learning resources, taking into account the minimal attitudes of tutors and educators in the learning process.

Based on these techniques, the use of various educational resources for modules and themes, based on the curriculum for distance learning. This includes electronic textbooks, e-learning aids, virtual labs, virtual stands, software solutions, and other materials available on the Web.

2. Individual methods of teaching and studying (single-method of learning), from one tutor's ability to interact with a tutor or one other trainee.

These methods are based on interactive collaboration programs on topics such as telephone, e-mail, curriculum, and distance education.

3. Methods based on teacher training material that do not play an active role in communication (one

training a person).

These methods are unique to the traditional education system and are developing on the basis of modern information technology. For example, lectures in the form of classroom lessons will be replaced by lectures in video and web conferencing, webinar formats for distance learning.

4. Methods for communicating effectively between all participants in the learning process ("majority-majority" education).

The importance of these methods is that their utilization significantly increases due to the intensive development of ICT. These methods, combined with subgrouping, focus on collaborative learning and are of great interest to distance learning. It is also known from the experiences that these methods are effective in addressing individual learning problems.

### Conclusion

Understanding of the individual skills of future staff and achievement of concrete results in the teaching methodology, laboratory work, demonstrative experiments, the organization and carrying out of the problem solving in distance learning opportunities will allow to understand the ways of solving various problems during their professional activity.

Despite the diversity of distance learning experts, almost all authors emphasize that the following key features of distance learning are flexibility, modularity, ease-of-use, cost-effectiveness, bandwidth, technology, social equality, teacher's new role, they express thoughts [1, 3]:

Thus, the basis of the distance learning process is an intensive independent study focused on and controlled by the listener. It can independently read it in its own table for itself, communicate with the technicians via telephone, e-mail, forum, webinar, web conferencing.

The above-mentioned distance learning form provides the most optimal form of education, methodologies and systematization.

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## CLOUDY TECHNOLOGIES IN EDUCATION

**Abstract:** Introduction. A Cloudy technology is a data processing in which computer resources and capacities are provided to the user as Internet service.

**Materials and methods.** The essence of Cloudy technologies consists in providing the users of hosting of remote access to services, computing resources and applications on the Internet. The hosting is a service in placement of the equipment of the client in the territory of the provider, at the same time his connection to communication channels with a high capacity is provided. Development of this sphere of hosting is carried out in connection with the need for the software and digital services which could be operated from within, but which would be at the same time more economical and effective.

**Results.** In comparison with a traditional approach cloud services allow to operate larger infrastructures, to serve various groups of users within one cloud and also they mean complete dependence from a provider of cloud services.

**Discussion.** When granting a cloud service the payment type "payment for use" is used. Usually, a minute or use hour of resources is accepted as a unit of measure of operating time. While assessing the volumes of data the megabyte of the stored information is accepted as a unit of measure. In this case, the user pays for that volume of resources which in reality was used by him during a certain period of time. Besides, a Cloudy technology gives to the user an opportunity if necessary to lift or lower the maximum limits of the allocated resources, using thus elasticity given service.

**Conclusion.** The user of cloud services doesn't have a need to care for infrastructure which provides operability of the services provided to him. All tasks of control, elimination of disrepair, expansion of infrastructure and so forth are undertaken by the service providers.

**Key words:** information technologies, mobile gadgets, Cloudy technologies, cloudy technologies, platforms, services, tendencies, electronic education, electronic educational resources.

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### Introduction

The world changes. And it changes quicker than we consider. Information technologies are one of the most powerful catalysts of world changes today.

The world in 2016 considerably differs from the world in 2006, and especially, in 1996. But nevertheless, the world of 2020 will be even less similar today. Development of the high-speed Internet, a mobile covering and devices, continuous reduction in cost and multifunctionality of gadgets significantly change our life day by day, and by 2020 and it will absolutely establish domination in our lives.

### Materials and methods

Main predictable tendencies of 2020:

#### Tendency 1. The world in clouds

Cloudy technologies are a remote Internet space for storage and access to data and also for carrying out various calculations. By 2020 physical data storage and acquisition of computing power will lose that role which is allocated to them now. The data will become not only more convenient to store "far off", but it will be also inexpensive and safe. And calculations will be made so quickly that the technologies will allow. When the issue of safe data storage is resolved, not only business but also individuals will pass the data storage in clouds.

#### Tendency 2. World of general mobilization

At the moment more and more users are connected to the Internet by means of mobile gadgets,

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than by means of stationary computers. By 2020 mobile devices will let not only notice the computer but also will become the first tool almost in all spheres of people's activity. Today already an e-mail, the presentations, documents, photo and video, cards, high-speed Internet and other services are entirely built-in in mobile devices. To 2020 mobile devices will replace printers, projectors, payment service systems, identity cards, and other documents. The advantages are obvious: gadgets don't take many places; they are light, convenient in use and multifunctional. Now already smartphones are used instead of expensive specialized devices, and in the near future, it will become a norm [1].

### Tendency 3. The world on a palm

The Smartphone wins the place as the main working tool, all necessary information contains in clouds, and the need for classical office gradually disappears. And it is the saved hours of the way from home to office, preservation of the physical and mental state and an opportunity to work practically at any place. Now already in many cities, there are working clusters: a cafe, co - working centers and etc. The mass of workers works far off where it is convenient for them to be. The workers' sense of responsibility must grow, and the main thing for the employer is to be sure of it. There are also advantages for the business (fewer expenses on office buildings, parking, public utility payments), and for the employees (the flexible hours which are adjusted on getting results).

### Tendency 4. World of devices, but not of people

In the future, you won't need to have many people around. Instead, ask a question, and the system will provide you with all the necessary information. Instead of the ordinary trainer in fitness club today you can already use the electronic trainer. By 2020 the majority of traditional branches will successfully replace the devices and virtual systems without a loss of quality.

When will all these innovations come? Whether it is worth waiting for 2020 or will change occur even earlier? They have already occurred yesterday and therefore if you don't want to lag behind all these modern technologies, then it is necessary to start to prepare for them right now.

IT-industry doesn't stand idle on the place, therefore, it is important to join this wave now that in further it will be possible to move to a progressive future. In this preparation, it is necessary not to forget about an education system that will direct first of all the novice users to the high modern technologies [2].

Now, at a high-speed information technology development, the system of education has had a list of the purposes, for the achievement of them it is necessary to use these technologies. As only by means of the introduction of IT getting effective management and the functioning of an education system will be possible.

Modern conditions show that automated data collection, processing, and storage are useful not only to financial and economic management in an education system. IT is even more often a kernel for managing the educational process and provides it with the support. All higher educational institutions (HEIs) possess their own websites on the Internet. It gives the chance to publish information which tells about the HEI, to keep in contact with students, teachers, scholars, employers and all, who are interested in the activities of HEIs .

Automation has affected also the processes of licensing and accreditation. It gives a chance to provide reporting documents in a convenient form and transparency of the adoption of resolutions by the relevant departments. Along with it, a remote education has got abroad distribution which provides with the knowledge acquisition at any place and at any convenient time. Therefore the concept "Virtual University" has been created from all this.

The importance of electronic education for educational institutions has promptly increased. Cloudy technologies give the educational institutions modern opportunities for providing with the dynamic and topical applications, based on Internet technologies for electronic education. Cloudy technologies provide consumers and state educational standards with a high -level service. This technology has an impact on architecture, existing services, and stages of introduction of training courses. Cloudy technologies bear new risks, but also an opportunity for educational institutions and learners to provide and get modern services, at the same time spending minimal finance.

It significantly changes the existing model Virtual Learning Environment (VLE, virtual educational platform), delivered as the set of tools for electronic education introduced and served by IT educational institution services. And also it will significantly change the learning management system LMS (from English Learning Management System). For which it won't be necessary to create materials, all materials will be already created by the suppliers of Cloudy technologies, it will only be necessary to be registered and make the necessary tuning. [3].

For educational institutions, the increasing filling by information and the functionality of managing platforms of the virtual educational environment (VLE) called differently as learning management systems (LMS) have a great meaning. There is no main definition of VLE-systems, because in the process of their introduction in world network they fill up the opportunities and apply modern resources in the form of blogs, etc.

VLE-systems have a low potential of creation and preservation of content generated by the users. All of them try to bypass those restrictions which the systems have during the work. Therefore they use the platforms which are in network and having a free basis

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of using. Grouping all instruments available free, they create the very tool which is necessary for the learners. But all platforms have one common peculiarity - it is giving the content and instruments of training to the groups of students studying a course at a certain period of time and being in different corners of the world.

Many educational institutions consider the development of educational content and its distribution on the Internet by a threat of market position. But there are also advantages in the form of collaboration between trainees and teachers. The very environment is closed from strangers to all this that blocks the access to "uninvited" guests. In addition to it, there is a control of the educational process as a form of data on the access to systems for pupils. Thus, there is a possibility of increasing the level of quality of the educational process, given by the services and content and also the level of experience and mastering the materials by students [4].

The choice of programs of remote education in the market of the educational software is big, they are presented by elementary HTML pages, and platforms with wide functionality. One of the main requirements given to means of the organization of remote education is a probability of simultaneous managing the educational process and quality control of the gained knowledge. The choice of the program providing for remote education is implemented according to applications, the purposes, and tasks of customers of a program providing.

The main criteria of the choice of remote education software are [5]:

1. **Functionality:** the existence of necessary options, among which chats, forums, managing the courses, the analysis of pupils' activity, etc.
2. **Stability:** level of stability of the platform at various modes of loading, depending on the level of the users' activity.
3. **Friendly interface:** one of the main parameters affecting the quality of the educational process.
4. **The convenient and simple interface** of administration and updating the content.
5. **Price:** it is formed of the cost of the platform and the cost of its maintenance.
6. **Modularity:** the educational course can consist of several blocks (modules) of a training material which if necessary can be included in the structure of other courses.
7. **Scalability:** the platform must have an opportunity to extend not only at an increasing number of pupils but also as an introduction of new courses.
8. **Multimedia:** the technical capacity of the platform must give a chance of application as instruments of training text and graphics files, video and audio, animation, 3D graphics, etc.
9. **Level of technical support.**

The task purpose is to consider the platforms and services of electronic education for educational institutions.

Depending on the main destination all platforms of remote education can be divided conditionally into:

- Box services (both free ready decisions, and paid);
- Services with certain rent payment for their use;
- Platforms for holding various webinars and conferences [6].

### Discussion

We will review examples of some platforms below.

#### Moodle

It is developed by the Australian programmers and is one of popular in the world including Russia. About 20 million people are the users of the platform, and the number of courses comes to 3 million. The ready box decision is presented, it is free and it can be downloaded freely on the Internet, payment is made for additional services and the place for file storage.

IBM Lotus (Workplace Collaborative Learning, WCL)

Working out of the IBM Company. Universal, reliable, flexible and easily scalable platform for the organization of remote electronic education, managing the educational resources and materials. It can be used while increasing the qualifications in the big companies and also in educational institutions.

#### Share knowledge

Working out of Competentum Company. It presents a free box decision. The main advantage of the platform is the possibility of the independent organization of the whole distance learning, from the development of courses, preparation and carrying out till managing the lessons and control of the level of listeners' knowledge. Text and multimedia files are used in training. Teachers can give out to pupils a task with restriction of delivery time, the beginning and completion of tasks and etc. Assessment of learners' knowledge level is implemented by means of electronic tests. [7].

#### Web Tutor

The program is developed by the Russian producer of the software Web Soft. The platform of complex automation of business processes connected with a selection, assessment, testing and training of personnel, systematization, and storage of knowledge and also with the organization of corporate communications and interrelations between the employees. If the module has the approach allowing organizing easily customized systems on the basis of a set the program modules the functions of which depend on the aims set for the customer. The platform is available both on the Internet and in the Intranet network.

#### Prometheus

Development of the Russian producer of a program providing "Virtual technologies in

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education". It fulfills the role of a ready-made (box) product or at the customers' request, the training system under the customer's requirements is sold according to the system Saas. The platform possesses architecture in the form of modules and, accordingly, it has a wide potential for widening and updating the platform.

It is possible to draw a conclusion that there are two approaches to presenting electronic education: VLE and the educational environment created from a set of Websites. But there is also the third approach, which can destroy both existed with its potential.

**Table 1. Comparison of electronic learning platforms**

Function	Platform	IBM Lotus	Moodle	Web Tutor	Share knowledge	Prome Theus
registration of learners, opportunities of personalization and delimitation of rights on access to educational materials		+	+	+	+	+
creation and conducting the on-line courses		+	+	+	+	+
introduction of computing and statistics on learning		+	+	+	+	+
control and assessment of knowledge level		+	+	+	+	
questionnaires and creating the questions		+	+			
opportunities of integration with other information systems		+	+			+
Price		+	+	+	+	+

Two companies Google and Microsoft began to offer services for employees of educational institutions and students. These services replace or supplement functions of institute systems, such as e-mail, instant messaging, making calendar plans; creation and storage of personal documents, providing general access to them, creating the Websites. Services of Google Apps for educational institutions and "Microsoft Live@edu" include the extensive choice of instruments which can be adjusted according to the user's need [8].

Google Apps provides with a set of the Google services, but available in the domain edu. The post service Gmail, the cloudy storage Drive, services on creating the tables, documents, presentations, and sites (Sheets, Docs, Slides, and Sites). However, the product is directed to cover the whole institution, the registration of corporate account on the responsible person. Inside of this account the users' accounts with different rights of access.

Microsoft Office 365 for the educational institutions allows us to use all possibilities of "cloudy" service, helping to economize the time and money, also it increases the learners' and teachers' capacity. With the help of the suggestions Windows Azure in education, the teachers get a chance to include in their educational process one of the more innovative and quick developed technologies both in the theoretical and the practical chapters. At the same, time these systems are placed at the external supplier of services, in a called "computing cloud" or just "cloud".

## Results

So, what is "cloud" (cloud) and "cloud computing" (cloud computing)? Cloud computing is a model of providing remote access to dividing computing resources which are physically distributed on many remote devices forming a so-called cloud (cloud) [9].

The main characteristics of cloud computing which distinguish them from other types of computing (internet resources);

1. The user himself establishes the necessary quantity of resources for work, whether it will be a number of servers, time of their work, the volume of data storage. At the same time, he doesn't interact with the service suppliers.

2. All provided services and capacities are available at any place of the globe, irrespective of platforms at which the user works.

3. All resources divided physically, are united in a whole by means of program platforms, hiding all this from users, providing access to any of their quantity.

4. The convenient scalability the provided resources provide the users at any time to reduce or increase power consumption.

5. Payment is made only for what has been really used, but not for the whole service in general.

If the model of providing the distributed and divided configured computing resources corresponds to the above requirements, then it is cloudy computing.

Cloudy technologies provide users with various information technologies as services available on the Internet. [10].

Models of expansion of Cloudy technologies that is cloudy technologies:

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Private cloud (a private cloud) - the infrastructure intended for use of Cloudy technologies on the scale of one organization.

Community cloud (a cloud of the community) – cloudy infrastructure which is intended for exceptional use of cloud computing with a certain community of consumers from the organizations which solve common problems.

Public cloud (a public cloud) - the infrastructure intended for the free use of Cloudy technologies by a wide public.

A hybrid cloud (a hybrid cloud) is a combination of various cloudy infrastructures (private, public or communities) remaining unique objects, but connected with themselves by the standardized or private technologies which provide a possibility of data exchange and applications.

Service models of Cloudy technologies or cloud computing:

Software as a Service (SaaS) - the software as a service. The service is available for the user in the form of web forms and applications which are developed at a service provider. Users can control at the same time not only the choice of hardware platforms and infrastructure but also the choice of concrete software and also his control.

Platform as a Service (PaaS) - the platform as a service. The user gets access to a certain infrastructure which is already adjusted to equipment rooms and the software. The user can't operate infrastructure configurations but operates the developed applications on a platform.

Infrastructure as a Service (IaaS) - infrastructure as a service. The user completely himself forms infrastructure which is necessary for him. That is he uses a service of outsourcing or rent of capacities. The user doesn't operate the main infrastructure of a cloud, but he manages the operating systems, storage and developed by him applications [11].

## Conclusion

The use of "Cloudy technologies" is included in the educational process with delay and hasn't found a wide use yet. Though modern students also read about "Cloudy technologies", and some also use individually among them in their own activity. However, the earlier teachers and other users begin to apply cloud services in the work, the earlier they will buy an effective tool for creating the personal trajectory of learning, the more effective and more interesting they will be able to make the training process.

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## THE CUSTOMER SUPPORT SERVICE DEVELOPMENT FOR USER APPLICATIONS

**Abstract:** The article includes information about development of chat bot support service, additional service for working with tickets and detailed description of how we work with files. Also there is information about testing and its types.

**Key words:** Telegram, chat-bot, helpdesk, GLPI

**Language:** English

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### Introduction

In our first paper [1], we talked about such a developed product as a user support bot. In that paper, such points as the planning of the components of which the product being developed will be made and the creation of the component scheme, which reflects the main services of the product, were revealed. In addition, a sequence diagram was developed for simplifying the understanding of the entire process of the product being developed for people far from the development process itself. And also, the main task of the previous article was to know what support systems are, what their purpose is, and summarize the main ways of interacting with such systems. If the goal of the past research was to familiarize with the analytical processes and the planning process, then the goal of this work is directly the development of the support bot itself.

### Dialog concept

Recall what a bot is. A bot is a program that tries to create the impression that it is not a program, but a living person; a program that automatically or on schedule, without any actions of a person, performs

various actions: responds to a message, makes various informational mailings, etc. [2]

The main function of a bot is to communicate with people, so before developing a bot, you need to think through the program's dialogue with the user, that is, determine the most basic actions, the behavior of the bot.

Since we are developing a support bot, all its actions should be aimed at enabling the user to create an application without any problems and get an answer on it. We formulate these basic actions:

- ticket creation;
- ticket appending;
- cancelation of the ticket by the user;
- ticket sending;
- getting the ticket solution.

For each action from the list, you must formulate a message that will come to the user in the chat. In addition, since the development is initially carried out for the Telegram platform, we will use the convenient tools that it provides, such as inline keyboard - these are the buttons that come with the message, and in addition, these buttons are easily removed when they are no longer are needed. Such buttons will be useful

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to us also because with their help the user will be able to choose what he wants to do. For example, there will be a «Create request» button or a «Cancel request» button, and at the choice of one of such a button, we will be able to explicitly recognize what the user wants to do, execute his command and provide some answer.

Also, besides the fact that we formulate the texts, it is necessary to think over the entire sequence of dialogue and transitions on the formulated messages that the user can make. After much deliberation and discussion, we came up with this result (see Fig. 1) - we offer the user to create a ticket, then he must enter

his first message or cancel the application. After that, he can either append it or send it. It is meaningless to suggest canceling it, since he has not even created it yet (entering a message does not mean creating a ticket in the support system), so if he does not want to send an application, he can simply stop and not take any action.

After the ticket has been submitted, the user can still supplement it - all of a sudden he has some thoughts. If he does not want to send, then he just has to wait for an answer. At the same time, he may cancel it if, for example, he has already resolved his own question. And it is also possible to create a new ticket.

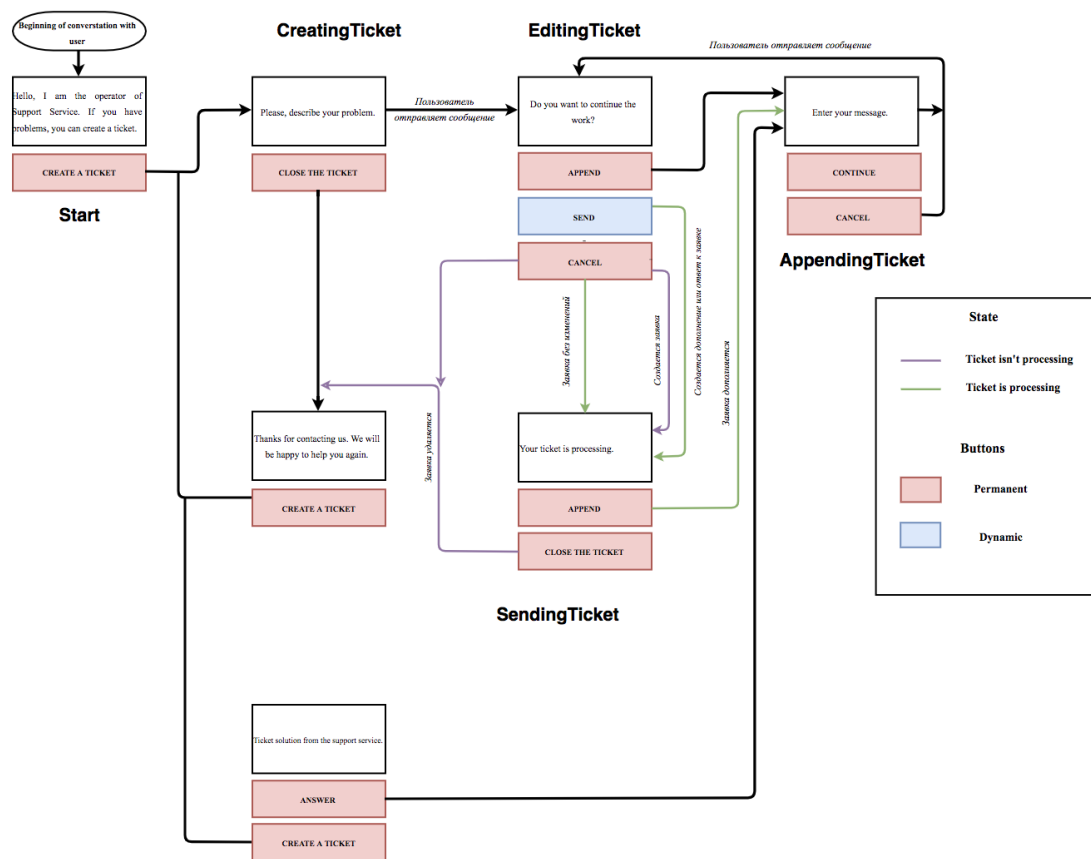


Figure 1. The first dialogue implementation

We will discuss the nuances that arose after the first implementation of such an interaction below.

### The first implementation of the dialogue

Now that the dialogue and all transitions are formulated, we can proceed to its implementation. First, select the main buttons that are used in the dialogue:

- «Create a ticket»;
- «Cancel the ticket»;

• «Cancel» (but already cancel the addition, it is important to distinguish between these two buttons);

- «Append»;
- «Send».

As you can see from the flowchart (see Fig. 1), when you press each of the buttons, we move to another well-defined state - thus, it is important for us to know where the user is now and store this state in the database. There are five such states (see the captions to Fig. 1):

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- the state of start or beginning is the point at which the user is when he sees the message about the offering for creating a ticket (selection of the `/start` command);

- the state of creating a ticket;
- editing the ticket state;
- appending state;
- sending state.

Such an approach, with the determination of a finite number of states, is called a finite automaton. A finite automaton is an abstract model containing a finite number of states of something [3]. Used to present and control the flow of execution of any commands. The state machine is ideal for implementing artificial intelligence in games, while we get a neat solution without writing cumbersome and complex code.

The first implementation of the dialogue was just this: we defined a finite number of states, defined transitions. For each button of the keyboard there is a so-called callback data, you can store absolutely any information in it. This is the data that is not displayed to the user but is a certain metadata of a specific button - for our situation we stored some value that uniquely identifies this button.

When any action came from the user, we first determined what state the user was in (this value was currently received from the database) and then we looked at the type of action that came — whether it was a message or an event when a button was pressed, in the latter case we also looked and the callback data of this button. And already on the basis of this knowledge they decided what to display to the user - which text and which keyboard.

### The second implementation of the dialogue

The approach described above was good until a certain point, until it was necessary to develop the

functionality of simultaneous work with several tickets. In the described approach, it was simply impossible.

For example, if a user worked with ticket #1, stopped at entering a message and entered the `/start` command, then he simply could not return to work with ticket #1, since being in the Start state, he could not enter messages - could not press the «Add» button, because in the Start state there is simply no description of how to work with this button (after all, as can be seen from Figure 1, you can work with the «Add» button only from the Editing state).

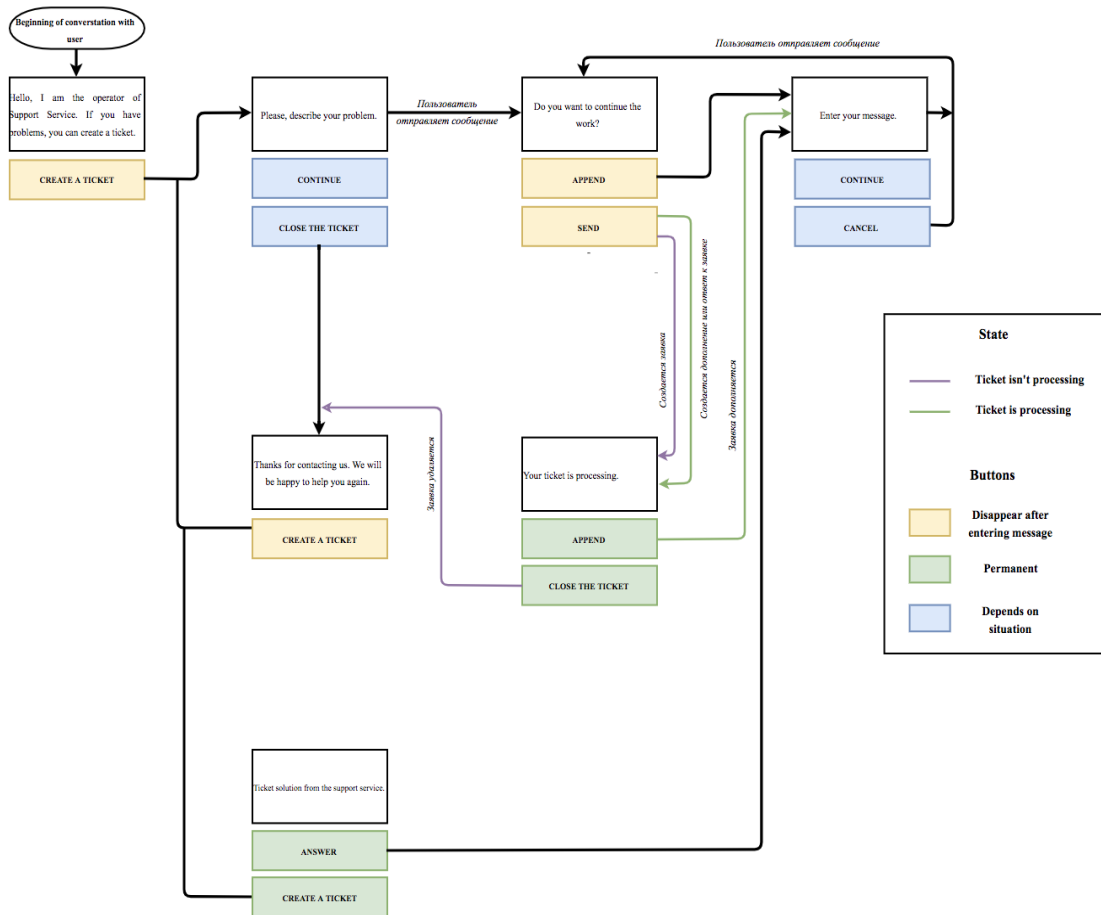
Therefore, we have to move away from states and a well-defined transition logic. Changes to the previous flowchart can be seen in Fig. 2. What has changed in it and in implementation? First, we would like to note that since we used to work at one time only with one ticket, the database for each particular user had one ticket number, now it was necessary to store the history, and, besides, somehow recognize which ticket we are working with now.

As noted earlier, each button has callback data, and we can configure it as you like, so it was decided to leave some unique designation of this button (create, close, send, append, cancel) and in addition to add the ticket number with which we work. It looks like this now - for example, `send_145` means that we have the «Send» button and, when pressed, we will send the ticket with number 145 to the support system. And now, when an event about pressing a button comes from the user, we can safely determine which button is pressed and which handler now needs to be called, and with which ticket we are working.

Also, the value of callback data we write to the database for each user at each time point, when the user performs any actions with the bot, because we need to know, for example, at what point in the dialogue the user enters a message: at the first moment of creating the ticket (the first message - the user pressed the button with callback data = create) or it is the addition of the ticket (append), because the handlers for these events will also be different.

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**Figure 2. The second dialogue implementation**

In addition, a new button «Continue» appeared. Note that the chat history is saved in the chat itself (until the user clears it), which gives us the opportunity to return to work with the ticket that has been created for a long time. As can be seen in the flowchart (both new and previous), the green buttons are permanent and are not deleted during the dialogue, that is, at any time, until the ticket is resolved, you can safely scroll through the message history and add (or cancel) the ticket.

As for the blue buttons, it depends on the situation. If the user enters a message and at this moment decided, for example, to create a new ticket, then we will have the «Continue» button, which makes it possible to return to entering the message later. That is, any action that interrupts the input of a message causes the «Continue» button to appear, and the cancel buttons remain. And if the user has entered a message, then the blue «Cancel the ticket» and «Cancel» buttons simply disappear, as before on diagram 1.

As a result, we received a more universal processing of the dialogue steps and refactored the program code in such a way that when adding a new button, it would be enough for us to write a new

handler and add it to the factory (the factory will be discussed in the section on implementation), which will return the handler, depending from what callback data came, or in what state the message came. Indeed, earlier, when introducing a new button, a sufficiently large amount of code would have to be changed, depending on how many states this button is used.

And, abandoning well-defined states, we implemented a mechanism for simultaneous work with several tickets, which allows the user to supplement old tickets (if they, of course, have not yet been resolved) and create new ones, while not losing the opportunity to work with other tickets.

### Support Service implementation

We now return to the implementation of one of the developed services - Support Service and Account Service. At the same time, we will not consider the Account Service as a separate service, with us it's just a data access layer — that is, a computer program layer that provides simplified access to data, namely, various information about user accounts, bot accounts, etc., stored in any type of permanent storage, for example, a relational database.

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At the same time, the Support Service is an implementation not for one particular bot, it is an implementation in which you can register many bot accounts that will perform the same actions. We need such a mechanism, because in the company where one of the authors works, there are many different projects, and all of them need their own support.

The question arises, why not use one bot support for all projects. There is a simple answer to it - the support system in this case will simply not understand from which project exactly the ticket came. It would be possible, of course, before each creation of the ticket to ask, «where did you come from?», but this would be very inconvenient. Moreover, it is very difficult to filter such information within the support system and it would be difficult to make the mechanism for separating tickets from different projects universal.

And by creating different bots and connecting them to the same Support Service (and registering the bot with the Ticket Service), we can easily, when registering a bot account with us, assign to it a uniquely identifier - meta information that we can already send to the Ticket Service and create tickets in the support system for projects defined for this bot - this will be described in more detail in the section on the implementation of the Ticket Service.

We describe how the development begins. First, we will develop a Web API application using ASP.NET Core. Web API is a way to build an application that is specifically tailored to work in the style of REST (Representation State Transfer, or "transfer of presentation state"). The REST architecture implies the use of the following methods or types of HTTP requests to interact with the server:

- GET;
- POST;
- PUT;
- DELETE.

To process requests in our application, a special controller is used for which the route is defined. The first controller to be written is the controller that processes messages from Telegram. This is an option for the first implementation, later a controller will appear, processing messages from Facebook (FB) and any other instant messengers - each external service has its own controller.

As a result, the appeal to the address *api/telegram* will correspond to the appeal to the «TelegramController» controller. Inside the controller there are methods to which the special attributes [HttpGet] or [HttpPost] are applied, which indicate which type of request will be processed by the method.

In our controller there will be only one single method - the Post method, which is able to receive messages from Telegram. At the same time, we can write absolutely any path to each method, for

example, the path to the method that receives the update from Telegram is as follows: *api/telegram/{botToken}*, where botToken is the token of a particular bot account, we need it to we could recognize which bot comes from.

An important question arises, how to force Telegram to send messages exactly on such a path - this is done by registering a webhook. Every time when we register a new bot account with us in the service, we have to ask him a webhook, and then all updates (all user messages) will be sent to this address.

We will need another controller to process requests from the Ticket Service when it sends us messages about the decision of the application. We also need to provide an outside API for registering bot accounts - this is necessary because usually simple developers may not have access to databases in the production area, and they will not be able to add an entry manually. And it is important for us to store this information, because otherwise, anyone can register a webhook on any bot and use our service, and we are unlikely to be able to find out.

Above, we described the most basic part of the Web API application - controllers, with the help of them we get information from external services that send us requests. Since the development itself can be written a lot, long and deployed, which greatly exceeds the reasonable size of the article, we would like to highlight the main points that were developed for the Support Service.

First, an important part of the application is the data warehouse. For Support Service, the database scheme was designed so that we could store information about users, and from which channels and bots they came, information about channels and channel accounts (the channel in this case is the instant messenger, and the channel account is a specific bot and the history of applications - by which user, by which bot they were created).

It is also important to abandon any specific data contracts in the service itself (Telegram data contract or Facebook data contract), so you will have to constantly expand your application, write separately the data processing for Telegram, separately for FB, separately for another messenger. It is necessary through the controller to take a specific contract from the messenger and be able to convert it into our data type, which we will use in all places of our application - it is easier to write one hundred converters than to write one hundred handlers of the same meaning. And thus, we will be able to write just one kind of internal service with the HandleUserAction method, which will accept the already converted data type as an input and implement this method in all controllers.

As for working with objects Telegram. We have previously determined that we work with an inline keyboard, plain text messages (and various image's and documents are added, but within the framework of Telegram they are still considered as a Message

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type, which has corresponding attributes for each of the Text, Photo, Document types etc.) and commands that begin with the «/» symbol.

When Update comes from the user, we have to convert it into one of the types that are common for the whole service (we identified two such types for ourselves: CallbackItem - the «button» type and MessageItem - the «message» type - we notice right away that these will be two universal type, because all bots have buttons, all have messages, it is important for us to share it). And in order to make processing even more universal, we will highlight the IUserAction interface, which both of these types will inherit.

After that, we need to process any of these types, and process not only depending on what came - the button or the message, but also depending on which button came (from which callback data), or at what moment a message has been received (at the time of creating the application or at the time of its appending).

For the first situation, everything is very easy, we take IUserAction to the internal method and just see what it is - if it is a message, then we process it as a message, if it is a button, then we process it as a button. But in order to decide that if it is a button, then what exactly needs to be done in response to its arrival, the design pattern «factory» will help us - this is the generating design pattern that solves the problem of creating various products without specifying specific classes of products.

Consider this on the example of buttons. We have five buttons, each has its own specific callback data, according to which we will decide which handler to call. All handlers with us should be essentially monotonous. Thus, we can select an abstract class that will have a Handle method. Each button class will inherit this abstract class and implement its own version of the Handle method.

As for the factory method itself, it accepts IUserAction as input and it will already decide whether we can work this action as a button and return the corresponding class object - if we can, then we return this object (created through new) and in the external method call the Handle method. This is a very universal approach because:

1. We pass the IUserAction type to the factory method (as we know, its implementations are either MessageItem or CallbackItem).

2. Then we decide: can we process this input value as a button or as a command or as a message.

3. If we can, then simply return the object of the class and then call the Handle method of this object. And it is not at all necessary for us to know what kind of object it has returned and what class it is from - it has the Handle method, end of story; we define the processing logic inside the factory method.

Another important point. If we work universally at the input point of the application (when messages

from messengers arrive), then it is also important to work universally at the output point — when our service is already sending out answers. This is done in the same way, only at the output we convert our internal type into a specific data type of a specific messenger and send it. We have a single output point, where we decide where, in fact, we have to send an answer, and we send it there. This is done according to the principle of the same factory method: we have a single interface and its various implementations, and depending on the destination messenger, we select the implementation and call the Send method, and our message goes where appropriate.

### Ticket Service implementation

Now we can go to the description of the development of the service ticket. The main tasks of the service ticket:

- receiving messages created by users;
- processing and saving in our database;
- work with the support system API (creating an application, adding a comment, closing an application);
- receiving and processing a response from the support system, sending the result to the support service.

Ticket service is a separate service that has its own API. Highlight his methods:

- creation of the ticket;
- appending of an existing ticket;
- sending the ticket;
- closing the ticket by the user;
- check the status of the ticket - it is closed or not.

Development, just like in Support service, begins with the creation of a controller and the allocation of basic methods, which we also use to specify the paths (routes) along which the conversion will take place. And everything else depends on variations of implementation. Highlight the main development modules in our service.

First of all, a ticket service is a service with which any users/clients can work, not only the service support clients. Therefore, it is important to implement the authentication of the incoming client. When registering a client, we provide him with a GUID - a unique identifier under which he can contact us in a ticket service. When creating a ticket, only the fact that the client is registered with us or not will be checked. And when working with a specific application, we will check that this application was created by the incoming client, but if not, then the bad request will be returned. Of course, this situation is unlikely only if the data in the database is not corrected manually, but we must be cautioned.

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As for the database, everything here is designed to store information about tickets created, messages, customers that we register with us. In addition, we store information about supported support systems. Also, due to the peculiarities of working with GLPI and the fact that we may have several bots that correspond to different projects, we must create separate projects in GLPI and create tickets for each client in this project. Therefore, we still have separate tables for each helpdesk, where we store information about which project corresponds to which client.

Another very important thing is how to find out that the application has been resolved and the answer can be sent to the user. Different support systems have a mechanism such as a webhook, and in the system you can configure this mechanism, which, when decided by an application support officer, will automatically send a request to the ticket service. But, unfortunately, the helpdesk chosen by the management of the company does not have such an opportunity.

Therefore, we had to figure out how we would interrogate the helpdesk about the solved requests. The easiest thing to do was to use a scheduler, and according to a certain schedule we would «ask» the helpdesk and, if the ticket was resolved, send the result to the support, and he would decide there himself which answer came to which user. So we did, we wrote a job, which is launched using the Hangfire Scheduler [4] at regular intervals and does its job.

In addition, we wrote a second job, which is engaged in the creation of unsent tickets in GLPI. Tickets may be able to failed (not sent) if, for example, there was no access to the support service itself or for any other unknown reason.

### Working with files

One of the important features that was requested by the first bot users (within the company) is the ability to upload files of various formats: images, documents, etc.

In order to develop this functionality, first it was necessary to carry out a large analytical work:

- figure out how to work with files in Telegram;
- consider which files we allow to upload and their allowable size;
- assess the possibilities of working with files in GLPI;
- consider where to store these files;
- think over new dialogue scenarios.

Let's go from the very beginning - how files are processed in Telegram. When a user sends an image, document or any other media file to the chat, Telegram recognizes it as a Message type, but taking into account its format: Audio, Photo, Document, etc.

All types have the same required *file\_id*, *file\_size* fields, but there are differences, for example, the Document type has a *mime\_type* field — data types that can be transferred via the Internet using the MIME standard (for example, image/jpg or application/pdf).

Now we define the acceptable formats and size: in order not to clutter our future storage, we will limit the file size to 5 MB, and take the most common formats - JPEG, PNG and PDF. Why we will not allow to load docx or, for example excel? The answer is simple, all text formats can be converted to PDF, besides this data format is safer to use.

What is such a file? This is a byte array. But when the user sends the file to the chat, we receive only Update — the object that describes the incoming message, that is, we do not have any file at this step, only general information about it. Therefore, we need to get exactly the byte array to send it from the bot to the Ticket Service, and then to the help desk itself.

Getting the file is done in two steps [5]:

1. Make a request to the Telegram API at `/bot<bot_token>/getFile` and pass the *file\_id* as a request parameter - here we can receive either an Error Message with an error code or a successful message consisting of *file\_id*, *file\_size* and *file\_path*.

2. The second request will already concern getting the byte array itself - we make a request to the address `/file/bot<bot_token>/<file_path>`.

By the *file\_path* parameter we can find out the file extension and its mime type, these parameters will be useful to us in the future when we save the file to the repository. Thus, now we know all the information about the file and the file itself. Next, consider the possibility of working with files in GLPI. Initially, it was rather incomprehensible how to attach documents to the application, because there was no clear description of this process in the helpdesk documentation.

During the research, one solution was found: the ability to add an image/document via html - use tags that would allow adding a link to the file: and if it is an image, then it would be fully displayed, and if the document, then it could be downloaded with following the link [6].

This solution was not ideal, because in the first message of the ticket (ticket description), such tags were not displayed at all (GLPI features), that is, just an empty message came. The use of tags was possible only when adding a comment to the application, but if the user sent only the image/document, then first it would be necessary to create a request with an empty description, and then send a comment.

Then another solution was found: GLPI has the Document type, which can be associated with an application. This process consists of the following steps:

1. To begin with, we look at whether we have a created request for the send request (either the user

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sent only a message, or the user complements the already created request). If there is no application, then create it.

2. Make a request to the GLPI API at *apirest.php/Document*. Request parameters - the manifest - is a special file that stores information indicating browsers which files should be saved, which should not be saved, and which files should be replaced with some other content, and the file itself should be a byte array.

3. Then do the binding - request to the API at *apirest.php/Document\_Item*, as parameters we pass *documents\_id*, *items\_id* (*ticket\_id*) and *itemtype* - the type of the entity to which we attach the document, namely «Ticket».

After you have completed the steps above, in the application you can see all attachments that have been added by the user. We now turn to the question of storage. For the first implementation of this functionality, it was decided to store documents in a database. In Postgres, for byte data there is a type *bytea*. In our initial assumptions, this was a good and simple solution. But since the production database is in a cluster, in which not only our database is located, it was necessary to find out if we would cause any harm to neighboring databases.

And in fact, this possibility exists, because if the files are too large and there are just a lot of them, then the cache that should be used for other requests will be clogged. Over time, the database grows, processes that give files clog up a free pool, the load and space used increases.

Then, for reflection, the option of storing files in a container was chosen. Note that our application is deployed in a Docker container [7]. Containers are like directories. Containers contain everything you need for the application to work. Each container is created from an image. Containers can be created, started, stopped, transferred or deleted. Each container is isolated and is a secure platform for the application.

In other words, a container is like a separate small running computer.

But this option did not suit us at all, because we restart the container with each update of the service and thus, the data that is stored there is naturally deleted. Even if we take into account the fact that when a user sends a file and clicks «Send», we instantly download the file from Telegram, upload it to our machine and then to GLPI, it's still possible that while the user sends the document to the chat and click the «Send» button, a long period of time will pass, during which we will restart this container.

The only option is the file sharing. Initially, we were told that it was rather time consuming to raise all this, but later we came to the conclusion that this is the best option, and it is necessary not only for us, but also for other teams in the company. Therefore, we have deployed the file sharing. Interaction with it is very simple - all we need is to upload the file there and upload it on request.

Now it remains to review the concept of dialog with the user when he downloads files. There are two possible behaviors:

- The first one remains exactly the same as when working with regular messages.
- The second - when the data sent by the user exceeds the size or does not correspond to the format and type of data that we support. In this case, it is necessary to send an error message to the user and suggest trying to enter something else.

This scenario can be seen in the next diagram (Figure 3).

### GLPI helpdesk

As mentioned earlier, this support system was proposed by the company's management, so we didn't have much choice. This helpdesk is pretty good and easy to use. Helpdesk itself was described in [1], but the main points should be briefly recalled.



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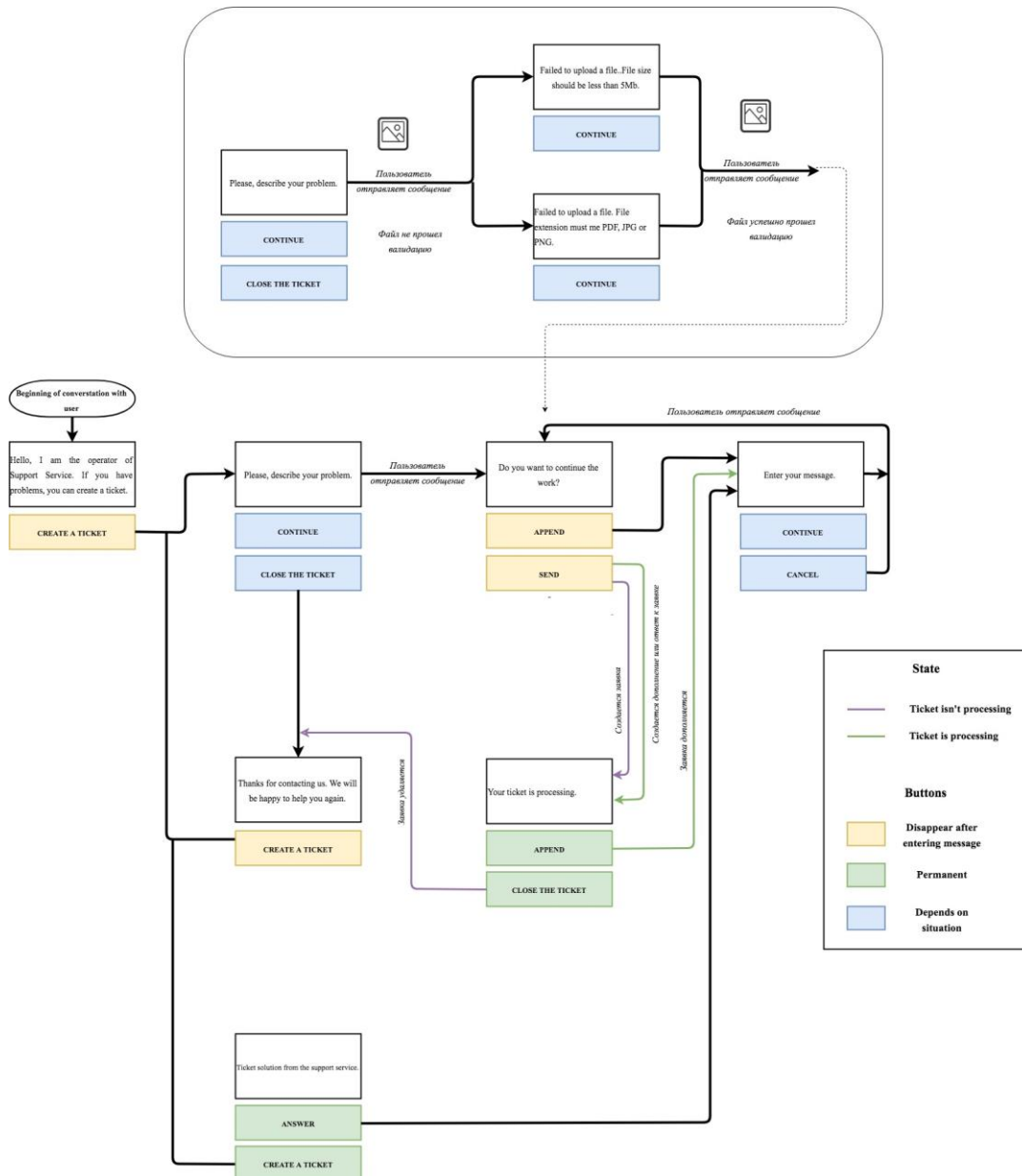


Figure 3. Scenario of working with files

GLPI - an abbreviation for the Gestionnaire libre de parc informatique (Free IT Infrastructure Manager), is a system for handling requests and incidents, as well as for inventory of computer equipment (computers, software, printers, etc.) [8].

We introduce the basic concepts for working with the GLPI API.

*User token* - used in the login process instead of username / password. You can find it in the Personalization → Remote access keys → API token tab.

*Session token* - the string used in all requests to the GLPI API, describes the session in GLPI.

*Application token* - an optional parameter by which you can identify access to the API. You can find

it in the tab Setup → General → API → API client → Application token.

And we give a description of the main methods of working with the API.

- **Init session**

In order to get started with GLPI, you need to initiate a session — get a session token. This is done through a GET request - `initSession`.

URL: `apirest.php/initSession/`  
Parameters (Headers):

- App-Token: `<app_token>`
- Authorization: `user_token <user-token>`

Response:

- 200 (OK) – parameter «`session_token`»

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- 400 (Bad Request) – error message
- 401 (UNAUTHORIZED) – not authorized

### • **Create ticket**

URL: `apirest.php/:itemtype/` → `apirest.php/Ticket/`

Parameters (Headers):

- App-Token: `<app_token>`
- Authorization: `user_token <user-token>`

Parameters (JSON):

• input - an object with fields of the type (specifically the ticket) that we create.

Response:

- 200 (OK) – id of created ticket
- 400 (Bad Request) – error message
- 401 (UNAUTHORIZED) – not authorized

### • **Cancel ticket (status update)**

If the user does not want his ticket processed, then it is necessary to implement a mechanism for canceling work with it.

URL: `apirest.php/:itemtype/:id`  
→ `apirest.php/Ticket/{id}`

Parameters (Headers):

- App-Token: `<app_token>`
- Authorization: `user_token <user-token>`

Parameters (JSON):

• id – ticket id

• input - an object with fields of the type (specifically, a ticket) that is modified.

Response:

- 200 (OK) – update message
- 400 (Bad Request) – error message
- 401 (UNAUTHORIZED) – not authorized

### • **Add comment**

After the user has already created an ticket and tries to appending it, all new messages will be added as comments to this ticket.

URL: `apirest.php/:itemtype/` → `apirest.php/TicketFollowup/`

Parameters (Headers):

- App-Token: `<app_token>`
- Authorization: `user_token <user-token>`

Parameters (JSON):

• input - an object with fields of the type that we create.

Response:

- 200 (OK) – id of created comment
- 400 (Bad Request) – error message
- 401 (UNAUTHORIZED) – not authorized

### • **Search information about ticket**

After the ticket has been submitted and created in GLPI, it is necessary to periodically find out the status in which it is located.

URL:

`apirest.php/search/:itemtype/` → `apirest.php/search/Ticket/`

Parameters (Headers):

- Session-Token: `<session_token>`
- App-Token: `<app_token>`

Parameters (query):

• criteria - an array of different criteria by which the query results are filtered.

Response:

- 201 (OK) - objects that meet the query criteria
- 401 (UNAUTHORIZED) – not authorized

### • **Add ticket to project**

Different clients can work with the bot service. At the same time, the service itself can work only with one helpdesk, and then it will be unclear from which client the ticket came and how to solve it correctly (the context will not be clear). Therefore, it is necessary to separate tickets depending on the client. GLPI provides such a tool as projects. Task is created for the project and an application is added to it.

URL: `apirest.php/:itemtype/` → `apirest.php/ProjectTask_Ticket/`

Parameters (Headers):

- Session-Token: `<session_token>`
- App-Token: `<app_token>`

Parameters (JSON):

• input - an object with fields of the type that we create. Specifically, here it is necessary to specify the id of the ticket that we want to add to the project, and the task id (task identifier) of this project.

Response:

- 201 (OK) – id of added ticket
- 400 (Bad Request) – error message
- 401 (UNAUTHORIZED) – not authorized

### • **Create (upload) document**

Since we enable users to send not only messages, but also files of various formats, it is necessary to store and load these files into a helpdesk system in a convenient format.

URL: `apirest.php/:itemtype/`  
→ `apirest.php/Document/`

Parameters (Headers):

- Session-Token: `<session_token>`
- App-Token: `<app_token>`

Parameters (JSON):

• manifest - a special file that stores information indicating browsers which files should be

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saved, which should not be saved, and which files should be replaced with some other content.

- byte array - file
- Response:
- 201 (OK) - id of added document
  - 400 (Bad Request) – error message
  - 401 (UNAUTHORIZED) – not authorized

### • Bind ticket and document

It is not enough just to add a document; you must link the document with a specific ticket so that it appears when you switch to this ticket.

URL: `apirest.php/:itemtype/`  
→ `apirest.php/Document_Item/`

Parameters (Headers):

- Session-Token: `<session_token>`
- App-Token: `<app_token>`

Parameters (JSON):

- input – in the request body we pass `documents_id`, `items_id` (`ticket_id`) and `itemtype` - the type of entity to which we attach the document, namely «Ticket».

Response:

- 201 (OK)
- 400 (Bad Request) – error message
- 401 (UNAUTHORIZED) – not authorized

## Testing

It's no secret that human errors can lead to bugs at all stages of software development, and the consequences can be very different - from minor to catastrophic in production, after which you have to quickly stop the application/site and fix the identified bugs.

Software testing in this case just helps to find and fix these bugs before the product goes into production, thereby reducing the level of risk and improving the quality of the product. They also check the places of the user interface, where the user can make a mistake or misunderstand the output of the program, as well as the system's resistance to malicious actions.

Why is the testing process important [9]?

- Software development process is impossible without quality control of the developed product;
- Software testing process is as integral part of the development process as design;
- Testing allows you to assess the quality of the developed product

Since the developed bot is a commercial product, it should not be allowed to be released without prior testing. Therefore, in the framework of this work, we

also did various types of testing. There are main levels of testing that also took place in our project [10]:

- *Unit testing* - testing each atomic functionality of an application separately, in an artificially created environment. It is the need to create an artificial working environment for a specific module that requires a tester to know how to automate software testing, some programming skills. This environment for some unit is created using drivers and stubs.

- *Integration testing* - a type of testing in which the integration of modules, their interaction with each other, as well as the integration of subsystems into one common system are checked for compliance with the requirements. For integration testing, components that have already been tested using unit testing, which are grouped into sets, are used. An example of such testing is the writing of tests for the interaction of the application itself with an external database.

- *System testing* - is software testing performed on a complete, integrated system in order to verify that the system meets the initial requirements, both functional and non-functional.

- *Acceptance testing* - the type of testing conducted at the stage of delivery of the finished product (or finished part of the product) to the customer. The purpose of acceptance testing is to determine the availability of a product, which is achieved by passing test scenarios and cases that are based on the specification of requirements for the software being developed.

## Conclusion

This article has analyzed in detail the process of developing the service of support for users of client applications. We considered two different concepts of dialogue and chose the best option for our purposes. Also in the article were painted the main and important parts of the two developed services - Support Bot Service and Ticket Service.

To develop the Support Service Bot, we have studied in detail the work of Telegram, what opportunities it provides for working with files, with regular messages, what mechanisms for developing bots gives developers. To develop the Ticket Service, we studied the internal structure of GLPI, methods of interaction with it through the API, which is provided by GLPI.

We also faced the task of providing users with the ability to attach files of various formats to tickets, so we examined in detail various file storage options, their pros and cons, examined the issue of how Telegram and GLPI work with files.

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## SYNTHESIS AND STRUCTURE OF ALLYL 3-OXO-2-(2-PHENYLHYDRAZONE) BUTANOATE

**Abstract:** Biologically active allyl 3-oxo-2-(2-phenylhydrazone) butanoate was synthesized in the presence of allyl 3-oxo-butanate and aromatic amine and structure was approved by the X-Ray method.

**Key words:**  $\beta$ -diketones, hydrazones, allyl 3-oxo-2-(2-phenylhydrazone) butanoate, X-Ray.

**Language:** English

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### Introduction

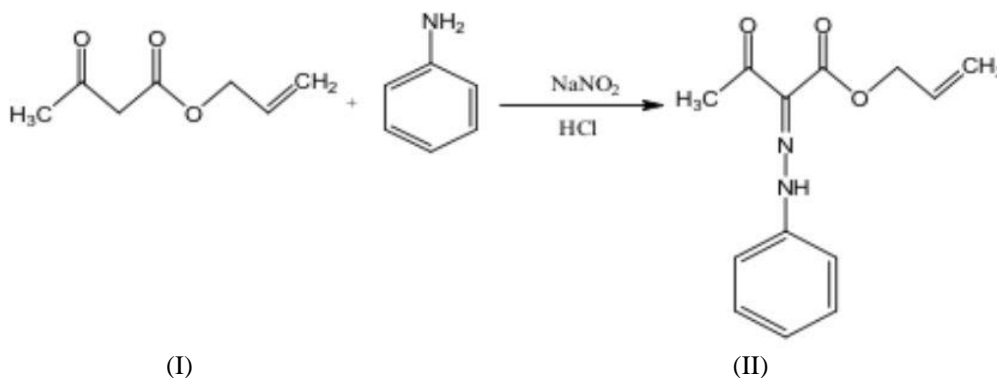
Now a day the field of  $\beta$ -diketones is a very exciting area of research because of biological activity [1-3].  $\beta$ -Diketones are a group of commonly applied spectrophotometric reagents in analytical chemistry because of their capability to form complexes[4-9]. Furthermore, derivatives of these compounds are

widely used in the treatment of antioxidant, antiviral centered inflammatory diseases [10-12].

The purpose of the research is to study the structure of the from the mixture of aromatic amine and  $\beta$ -diketone through diazotization reaction. The diazotization reaction between allyl 3-oxo butanoate (I) and aniline led to allyl 3-oxo-2-(2-phenylhydrazone) butanoate (II).

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The reaction was controlled by thin-layer chromatography (Sorbfil). The molecular structure of the obtained compound was determined by the X-ray method and deposited in the Cambridge Crystallographic Data Centre (CCDC 1537217). The compound ( $\text{C}_{13}\text{H}_{14}\text{N}_2\text{O}_3$ ,  $M_r = 146.26$ ), which was studied by the X-ray method, is a yellow crystalline

compound with sizes  $0.2 \times 0.2 \times 0.2$  mm. The dimensions of the monocrystalline structure lattice units are  $a = 8.7022(12)\text{\AA}$ ,  $b = 8.7472(12)\text{\AA}$ ,  $c = 9.3558(13)\text{\AA}$ ,  $\alpha = 107.090(2)^\circ$ ,  $\beta = 109.747(2)^\circ$ ,  $\gamma = 94.640(3)^\circ$ ,  $V = 627.70(15)\text{\AA}^3$ ,  $z = 2$ ,  $D_x = 1.205\text{ mg/cm}^3$ ,  $\mu = 0.08\text{ m}^{-1}$ ,  $\theta = 2.2\text{--}29.2^\circ$ .

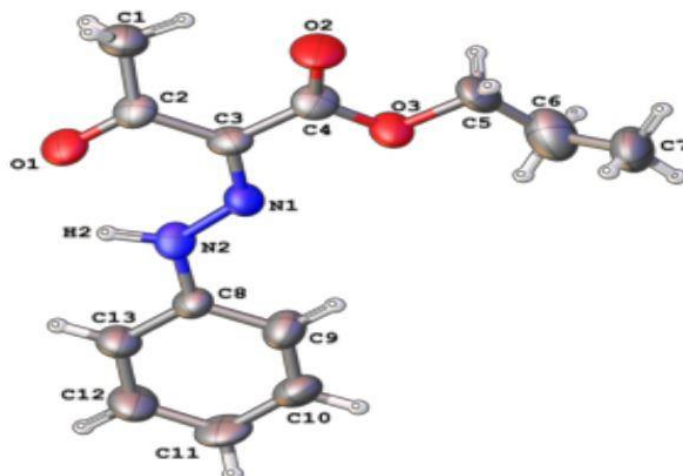


Figure 1. View of the crystal lattice of allyl-3-oxo-2-(2-phenylhydrazono) butanoate molecule.

The reaction and the purity of synthesized compounds were monitored by TLC. The structure of the compound was studied in the "Bruker APEX II CCD" diffractometer ( $T = 100\text{K}$ ,  $\lambda\text{MoK}\alpha$ -radiation, graphite monochromator,  $\phi$ - and  $\omega$ -scanning,  $20\text{max} = 560$ ).

**General method for the synthesis of allyl-3-oxo-2-(2-phenylhydrazono) butane.** 0.0625 mol Aniline and 0.35 g KOH is dissolved 10 ml distilled water and placed in the three-neck flask. Amine was formed an alkaline mixture after completely dissolve. The solution of 0.0625 mol  $\text{NaNO}_2$  in 2 ml distilled

water was added to the mixture and left to stir. 2 ml HCL was added drop by drop to the mixture by the controlling temperature ( $0^\circ\text{C}$ ). If the temperature rises above  $0^\circ\text{C}$  the ice is added to the mixture. The reaction is carried out at  $0^\circ\text{C}$  for 30 min. Then 0.0625 mol  $\beta$ -diketone and 0.5125 g  $\text{CH}_3\text{COONa}$  were dissolved 10 ml  $\text{CH}_3\text{OH}$ . The temperature of the mixture was cooled to  $0^\circ\text{C}$  and was added drop by drop to the previous mixture. The reaction is carried out at  $0^\circ\text{C}$  for 1 hour. The product was filtered and recrystallized in ethanol.

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QR – Article



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## BORROWINGS – LINGUISTIC PHENOMENA

**Abstract:** This article deals with the borrowing as one of the linguistic phenomena of the language. In addition, the specificity of the borrowed vocabulary from the Persian and Tajik languages, their features and functioning in the modern Uzbek language is revealed. There are two main sources of enrichment vocabulary: the first and basic one is internal opportunities and the second one is borrowings. Inadequacy and adequacy of borrowings is related to the historical development of language. Uzbek lexical layer was enriched with new words Persian-Tajik phrases, even suffix.

**Key words:** borrowing words, comparative-historical linguistics, Arabic language, Persian-Tajik language, Turkic languages, inadequacy and adequacy.

**Language:** English

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### Introduction

Language is a social event which develops together with society. So the problems in attitude between language and society make linguists interested since linguistics took shape as a subject. It, particularly, was expressed in linguistic conception of Ferdinand de Saussure. In his opinion, language is “social base of ability in making speech”, the system of linguistic signs as a social wealth for people who are native speaker in a certain language [11, 117].

Language cannot develop separated from other language, “each language, usually, consists of inclusion of various lexical factors” [2, 85].

The initiator of comparative-historical linguistics Makhmud Koshgariy approached to borrowed words in two ways: 1) there are different things used on a daily basis, they have been absorbed to life. If there is no word to call them it is possible to get this kind of words from neighboring countries. 2) the great scholar regards as a mistake usage of words from other languages instead of some words which are available in native language. In that case we should not utilize some Arabic words like “scientist, “book, “woman” instead of some Turkish words such as (belgi, bitig, urag’ut).

### Materials and Methods

Makhmud Koshgariy did not overlook borrowed words. For instance, he supposed that the word “qari’

(o’g’irlik, talash) had borrowed from Arabic to the Turkman language. Furthermore, Makhmud Koshgariy investigated borrowed words in other languages that were borrowed from Turkish. He wrote about the word “yolma” which meant “paxtali ton: The Persian took this word from the Turkish people and pronounced as “yalma. The Arabian people utilize this word as “yalmoq” borrowing from the Persian. Nobody can pretend that the Turkish borrowed this word from the Persian. Because, I heard about this word from people, who lived in rural places. They need the same raincoat compared to others. Since, it rains a lot.

An American linguist U.Vaynrakh writes that sometimes it is possible to explain the hindrance by analyzing the difficulties to be equality of the dictionaries between cultural condition needs [4, 24]. In E.F.Volodarskaya’s view, borrowings are universal linguistic event. It is composed of acceptance linguistic material from one language to another one as a result of additional linguistic connections [5, 96].

There are two main sources of enrichment vocabulary: the first and basic one is internal opportunities and the second one is borrowings. Inadequacy and adequacy of borrowings is related to the historical development of language. According to some information, there are some Chinese words in current the Korean language, nearly 75 %. As for current English, in this language some borrowed



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words play an indispensable role in forming the structure of vocabulary. These words came from the Scandinavian language and the French language [14, 251]. In the Urdu language there are some words borrowed from the Arabic and Persian language and the amount of them are nearly 50% [8, 11].

F.Abdullayev also confirmed that inadequacy or adequacy of borrowings is related to stylistic character of work and the features of genre [1, 33].

According to the notes of I.K.Ovchinnikova, in the Persian language it can be faced borrowed words mostly in scientific and popular scientific texts and the rate of these words is more than 30% [12, 49].

Borrowed words can be appeared small language. It can be seen that there some borrowed words which are Abhaz-adigey, Turkish, Arabian, Persian as well as Greek, Italian and French [15, 59]. In other language the ways and reasons of word borrowing may be various. For instance, in the fourteenth and fifteenth century as a result of revolutionary changes happened in science, art, technology in Italy several Italian words passed to European languages: *bank*, *cabinet*, *soldat sonet*, *gazeta* and other words. Several languages of world, including Uzbek, it has some Arabian words mostly they are related to the spreading of Islam. As for the Persian-Tajik words in Uzbek language, they are the consequences of close neighboring connection.

B.M.Grande also emphasized to borrow mostly words but grammar rules are borrowed less [7, 14]. Even though some languages borrowed many words they keep their own grammar structure. For instance, there are a lot of Arabian words in Persian literary language, the amount of them in some works is 60-70%. But this language changes the Semit language into although it acquired some grammar rules [7, 14]

The ways of borrowing words from other languages to another language might be different: direct and indirect, that is to say the first way is occurred immediately and the second one is occurred in favor of another language [10, 158].

The Persian language enriched the Uzbek language with some words like *navo*, *nabira*, *odob*, *parvo*, *parvarish*, *orzu*, *ozod*, *ovoz*, *rasta*, *rang*, *sedana*, *astoydil* as well as the Uzbek language has a huge influence on the development its lexicology, and particularly to some extent its grammar. N.Z.Gadgiyeva wrote that usually all borrowings in the Turkish language are dependent on internal rules in terms of deriving and changing words [6, 33]. E.Begmatov who is well-known linguist-scientist wrote that development and enrichment of language lexicon are dependent on two source 1) internal opportunity of each language 2) external source. There is no language which was not enriched by borrowing words from other languages. But this enrichment can be held in different extent and different position in each language [3, 22]. Sometimes there is a kind of state that two nations are

historically and territorially parallel to each other and lived in a neighborhood, cooperate in different fields. During a long period, they learn each other's language and can communicate easily. In that case it is appeared bilingualism. In Uzbek there are some words which came from other languages, all of them are called "borrowed words", "borrowing lexicon" or "borrowings". The term "borrowings" has two meaning) lexemes which are not its own word in Uzbek in fact b) some lexicons that were borrowed from other languages.

There are two reasons coming into language borrowed words that is one of the sources in enrichment of vocabulary: internal and external reasons. Connections among countries, nations as well as languages are external cause, while expressing conceptions more clearly, expressing some words briefly and conceptions in accordance with nature of preference for short forms, and completing the polesymous event in words are internal cause.

The losing value of the Persian language continued the period of Alisher Navoi who was the great representative of Central Asian Renaissance. After that period Divan and works were created by writers in order to show bilingualism. The most important thing is that our language kept its own words in lexical layer in that period which was mixed for a long time. It can be seen that if it is compared the amount of borrowing words with current Persian lexicology it will be definite that to what extent position given above is considerable, and nowadays keeping their pure language is significant on a large scale for the Persian (some specialists emphasized that 65 percentage of this language lexical layer is Arabian words). This position shows that if the amount of borrowings is more than limit the usage and amount of Arabian, Persian words in our language demonstrate norms of borrowings. Especially, this word, excessive degree of borrowings may lead to negative consequences of language development. When it comes to language, it should be mentioned that it may be faced this kind of "dramatic" situation in some languages which are left out becoming mixed, stayed in a low stage in terms of borrowing words, far from national, cultural, political, and economical connections. In current days some languages are experiencing this historical process, these languages are regarded as dying languages.

In the nineteenth and twentieth century historical changes that began in social life have some influence on our language. That time was the acceleration in word borrowing and being out of work.

In twentieth century organizing schools, becoming generally literate, publication of newspapers and journals, educating at schools accelerated this state once more there is an indispensable feature of this period that, not only there are Russian words in our language but English, French

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and Italian words came into our language through Russian language.

Initially, although borrowed words were characterized as a neologism their strange elements disappeared because of obeying exceptive language rules.

The next step of lexical development in our language is related to independence period. Some reformation in each fields of society, international, cultural, economical, political connections open new ways certain changes of language, development of language. The most important thing is that it is increased to come into our language terms from different language. Learning world languages gets to know their national-cultural habits and borrowing of conception and word related their customs enriches the vocabulary of our language.

According to information that was given above we can divide into four phase the lexical development of the Uzbek language:

1. till XI century the influence of Persian-Tajik language on Turkish.
2. in VIII-X centuries the influence of the Arabian language on Turkish.
3. in XX century the influence of the Russian language on Uzbek.
4. after independence period the effects of different languages, as well as English to Uzbek.

After the independence of influence on different languages to the Uzbek language. Entrance of neologism.

It is admitted that XXI century will be regarded as a century of information, technical development and great changes. Actually, news becomes common within a short time the needs for this kind of information in our community leads to the changes of lexical structure in each language to some extent. It is not expected that current neologisms come into our language easily and become common for people in usage.

The international dependence and proximity in modern technology does not allow us to express this kind of concepts which our own words. There are some kinds of words that meanings of them are noted (flesh, coca-cola). Nowadays modern technological words are becoming international words worldwide.

There is no language which was developed separated from other languages. Any changes in language are dependent on the changes of social structure, this has an influence on vocabulary of structure. As a result, language become enriched. Particularly, the vocabulary of Uzbek language is enhanced in four ways:

1. Creating words
2. Borrowing words
3. Changes of meaning
4. Appearance of phraseology

Generally, there are no any languages which do not lexicons from other language. Even though we try

a lot lexicons step from language to the other language. In that case we should not disagree with borrowing of lexicons, we should be against to unnecessary borrowings [13, 110]. It does not matter irrespective of lexicons belong to any language it is harmful not to accept lexicons which was absorbed in language:

- a) the living of Uzbek and Tajik people in one territory, the same social system, economical and cultural and moral circumstance from the past
- b) the spreading on a large scale of bilingualism which uzbek-tajik and tajik-uzbek
- c) the continuation of creating customs in the Tajik and Persian language a long time
- d) having special reputation of the Tajik language in the khanate of Kokand and the Emirate of Bukhara
- e) the dependence in literature, industry, culture, customs and traditions

It can be faced nouns (*sartarosh, avra-astar, bazm, barg, baxt, daraxt, darxtzor, hunar, hunarmand*), adjectives (*badbo'y, badjahl, baland, barvasta, bardam, barzangi, barra, baxtiyor, bachkana, ozoda, toza*), adverbs (*bajonidil, banogoh, do'stona, tez, bazo'r, astoydil, chunon*), conjunctions (*chunki, yoki, agar, garchi, ham*), exclamatory words (*balli, dod*), particles (*xo'sh, xuddi*), modal words (*chunonchi, binobarin*) between words which were borrowed from Tajik and Persian in the present Uzbek language.

In the borrowed words from Persian-Tajik: a) the lining of consonant sounds spread at the end of the word: like *g'isht, go'sht, daraxt, karaxt, do'st, past, kaft, farzand*. (This situation come across less in the whole Turkish); b) the helpless labial "o" vowel is utilized in the whole syllable of the word: like *ohang, nobud, bahor, obodon, peshona* [9, 45].

The linguist E.Begmatov emphasized that the word which was taken from other languages changed into borrowed words, that is to say, in order to change in the property of the Uzbek language experienced the following stages:

1. The social communicative need, demands are available in the Uzbek communicative system for borrowed word so this word is taken.
2. Borrowed words are utilized a long period, the interval of usage it makes lexicons legal property and object. For example, the words came the from Persian-Tajik and Arabian language were used during centuries.
3. It will be different changes from semantic point of view with borrowed in lexeme
  - a) Borrowed words have different meanings in Uzbek for example that word *jamoat* means *birlashma, uyushma, guruh* in the Arabian language, in Uzbek it has four meanings; the word *jiddiy* means *muhim, ahamiyatli* in Arabic, in Uzbek it has nine meanings; the word *joy* is a Persian word

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in fact, it means *makon, manzil*, in Uzbek it has thirteen meanings [3, 26].

### Conclusion

The lexical development of Uzbek may be learned basing on stages of certain period regarding indispensable changes in society. The Uzbek language which was known as Turkish was widely utilized as

well as Persian by people who lived in the territory of Central Asia. As a result of long-lasting mixture of languages affected lexical layer of both languages. Uzbek lexical layer was enriched with new words Persian phrases, even suffix. Initially, this kind of words was abstract for the language, but after some period the majority of them adopted.

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### SECTION 9. Chemistry and chemical technology

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## STUDY OF REACTIVITY OF HYDROXYL GROUP IN 1-ARYLOXYNONANOL-2

**Abstract:** The reactivity of hydroxyl group in 1-aryloxynonanol-2 which was obtained by the interaction of heptyloxirane with substituted phenols in the presence of sodium metal was studied. The content of aromatic radical intensifies protonization of hydroxyl group. As a result in the reaction of 1-aryloxynonanol-2 with  $\alpha$ -chloro ethers (chloro methoxyethyl) yields of ethers with dimethylaniline make 75-85%. The reaction of obtaining amides and thioamides with isocyanates and isothiocyanates also goes easily. The position of a substituent in phenol fragment has a little effect on the reactivity of hydroxyl group.

**Key words:** aryloxynonanol-2,  $\alpha$ -chloro ethers, urethane, arylisocyanates, arylisothiocyanates, antimicrobial property.

**Language:** English

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## 1. INTRODUCTION

1,2-dioxyethers alkanes have been widely used in medicine and have high antibacterial and fungicide properties [1,2]. Apart from ethers the content of amino groups gives the compounds antiarrhythmic and analgesic properties [3], but in the presence of pyrrolidine fragment ethers are antagonists of calcium receptors [4]. Considering their valuable properties, the method of obtaining aminocyclohexyl ethers has been developed [5].

## 2. EXPERIMENTAL

IR-spectra of obtained compounds were registered at spectrometer "Nicolet IS-10, NMR  $H^1$ -spectra were registered at spectrophotometer "Tesla-467" with a frequency of 80 MHz. The purity of the compounds was determined by Gas-Liquid Chromatography analysis using LKhM-8MD chromatograph with a flame ionization detector. Temperature of a column is 200 °C. Temperature of an evaporator is 260 °C. Helium is used as a carrier gas.

**Synthesis of 1-phenoxy-2-nonanol (I).** 66.9 g (0.3 mol) of 1-bromium-2-nonanol was added drop by drop into the mixture of 28.2 g (0.3 mol) of phenol and 30 g of 40% aqueous solution of NaOH at 80-85 °C and vigorous mixing. During mixing the mixture was heated up to 80-85 °C for 5 hours. Obtained ether was extracted with benzene. Benzene solution was washed out with water till neutral reaction, dried, benzene was distilled, and then the residue was distilled under vacuum. 48.7 g (66 %) of product was obtained.

The compounds II and III were synthesized similarly. Their characteristics are given in the table 1.

**Synthesis of 1-(2-methylphenoxy)-2-ethoxymethoxynonane (IV).** 10 g (0.04 mol) of 1-(2-methylphenolxy)-nonanol-2 and 6.05 g (0.051 mol) of freshly-distilled dimethylaniline were dissolved in 70 ml of anhydrous benzene. At room temperature and mixing for 30 min 4.7 g (0.5 mol) of freshly-distilled  $\alpha$ -chloromethylethyl ether dissolved in 30 ml of anhydrous benzene was added. Reaction mass was mixed at room temperature for an hour, and then at 55-60 °C for 3-4 hours. It was cooled, washed out with 5% solution of HCl and then with water till neutral reaction. Benzene solution was dried  $Na_2SO_4$ , benzene was distilled, and then the residue was distilled under vacuum by collecting fractions boiling at 146-148 °C/3 mmHg. 8.2 g (70%) of product was obtained. Compounds V and VII were synthesized similarly.

**Synthesis of 1-(2-methylphenoxy)-2-acetoxynonane (VIII).** 10 g (0.04 mol) 1-(2-methylphenoxy)-nonanol-2 (compound I) and 6.1 g (0.05 mol) of dimethylaniline were dissolved 60 ml of anhydrous benzene. During mixing 3.93 g (0.05 mol) of chloro acetyl was added into the solution drop by drop. At 45-50 °C and mixing reaction mass was heated for 3-4 hours. Then it was cooled, washed out with 5% solution of HCl and water till neutral reaction. Benzene solution was dried, benzene was distilled, and then the residue was distilled under vacuum by collecting fractions boiling at 134-136 °C/1 mmHg. 8.2 g (70%) of product was obtained. Compounds IX and X were obtained similarly. Their physical and chemical properties are given in the table 1.

**Synthesis of 1-phenoxy-2-N-phenylurethanenonane (X).** 10 g (0.04 mol) of 1-phenoxy-2-nonanol was dissolved in 40 mol of anhydrous benzene. At 80-85 °C and mixing 5.95 g (0.05 mol) of phenylisocyanate was added drop by drop into the solution of 20 ml anhydrous benzene. The mixture was mixed at 80-85 °C for 3-4 hours. Then it was cooled till room temperature, 25 ml of anhydrous hexane was added. Precipitated crystals were filtered and then recrystallized from the mixture of hexane-benzene (3:1). 9.7 g (68.1%) of product was obtained. Compounds XI and XIII were synthesized similarly.

In NMR  $H^1$ -spectrum (Fig.1) of 1-phenoxy-2-N-phenylcarbamidenonane (compound XI) protons  $CH_3$  and  $(CH_2)_5$  appear in unresolved form at 0.8-1.4 ppm, but protons  $CH_2-Ar$ ,  $CH$  and  $CH_2-o$  are observed in the form of doublet at 5,3 ppm.

## 3. RESULTS AND DISCUSSION

Considering high bioactivity of ethers of carboxylic acids and aromatic phenols containing active functional groups, currently strengthened studies on the development of more rational methods of their obtaining are carried out.

The dynamic kinematic determination of  $\alpha,\alpha$ -disubstituted carboxylic ethers catalyzed with N-heterocyclic carbenes was conducted by interesterification reaction of alcohols [7] by using organic compounds of actinide metals as catalysts with asymmetric tandem esterification reaction with proton transfer between aldehydes and alcohols. The developed method of esterification is suitable for a wide range of applications of substrates in the synthesis of different ethers. Reactivity of chlorine atom in alkanols under the impact of hydroxyl group in  $\beta$ -position was studied. It was found [8] that the reaction of m-methylphenol with 1-bromium-2-hydroxyoctan-ol-2 goes with high yield.

Studies on the reaction of 4-chlor-2-butanol or chloropropanol with oxalic acid also showed reactivity of hydroxyl group [9].

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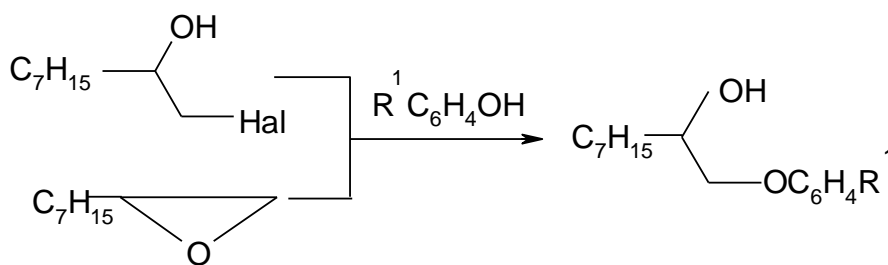
The content of chlorine atom in 1-position and 3-position in propanol propylthiogroups activate hydroxyl group and due to this esterification goes smoothly and the yields are very high. Moreover, 1-aryloxyalkylpropanols easily react with isocyanates or thioisocyanates forming carbamates and thiocarbamates [9,10].

1-(m-tolyloxy)-octanol-2 was synthesized by the reaction of m-cresol with 1-bromium-2-octanol. Reactivity of hydroxyl group in the reactions with  $\alpha$ -chloromethylpropyl ether, acetylchloride and during condensation with aromatic isocyanates and thioisocyanates was studied. All synthesized

carbamates and thiocarbamates have effective bactericide properties against staphylococcus, candida, typhoid fever and penicillin [11].

It was established [12] that the content of carbamate groups in 1-(N,N-diethyldithiocarbamate)-2-propanol does not block the reaction with arylisocyanates and isothiocyanates. On the contrary, yields of carbamates and thiocarbamates increase. Synthesized amides have high bactericide properties.

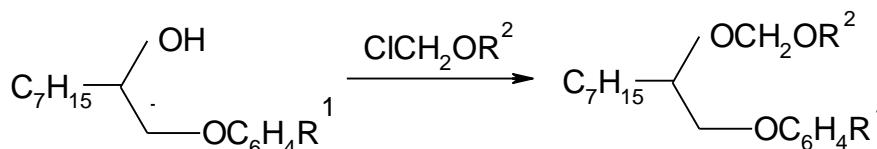
We have proposed the research on the reaction of aryloxynonal-2 with substituted phenols. 1-bromium-nonanol-2 and heptyloxirane were obtained by the known method:



R<sup>1</sup>=H(I); o-CH<sub>3</sub>(II);  
m-CH<sub>3</sub>(III); p-CH<sub>3</sub>(IV)

Scheme 1

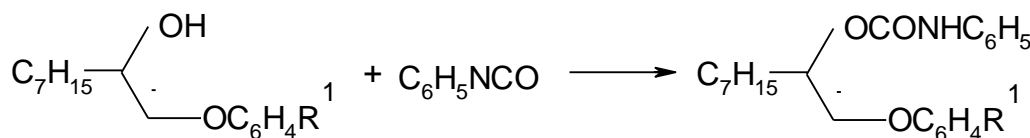
Due to the impact of electron acceptor aryloxy-fragment hydrogen of hydroxyl group is easily substituted with  $\alpha$ -chloroethers forming polyethers with high yields:



R<sup>1</sup>=O-CH<sub>3</sub>, R<sup>2</sup>=C<sub>2</sub>H<sub>5</sub> (V); R<sup>1</sup>=m-CH<sub>3</sub>,  
R<sup>2</sup>=C<sub>2</sub>H<sub>5</sub>(VI); R<sup>1</sup>= p-CH<sub>3</sub>, R<sup>2</sup>= C<sub>2</sub>H<sub>5</sub>(VII);  
R<sup>1</sup>=o-CH<sub>3</sub>, R<sup>2</sup>= COCH<sub>3</sub>(VIII); R<sup>1</sup>=m-CH<sub>3</sub>,  
R<sup>2</sup>= COCH<sub>3</sub>(IX), R<sup>1</sup>= p-CH<sub>3</sub>, R<sup>2</sup>= COCH<sub>3</sub>(X)

Scheme 2

For confirmation of hydroxyl group the synthesis of urethanes was carried out by the reaction of aryloxy-nonanol-2:



R<sup>1</sup>= H (XI); o-CH<sub>3</sub> (XII);  
m-CH<sub>3</sub> (XIII); p-CH<sub>3</sub> (XIV)

Scheme 3

**Impact Factor:**

ISRA (India) = 3.117    SIS (USA) = 0.912    ICV (Poland) = 6.630  
 ISI (Dubai, UAE) = 0.829    PIIII (Russia) = 0.156    PIF (India) = 1.940  
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 JIF = 1.500    SJIF (Morocco) = 5.667    OAJI (USA) = 0.350

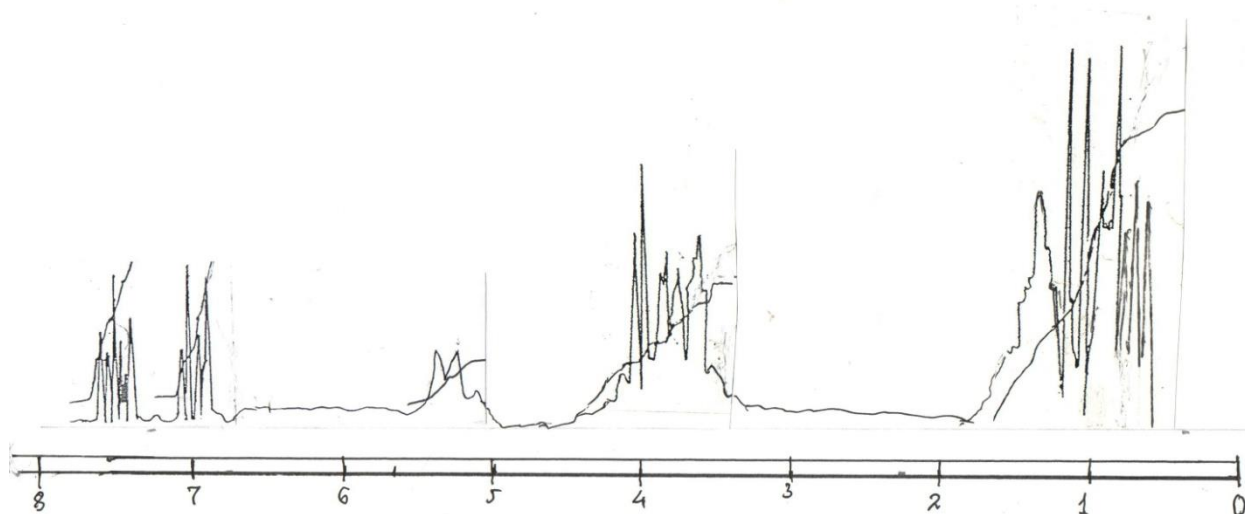


Fig.1. NMR-spectrum of 1-phenoxy-2-N-phenylcarbamidenonane (compound XI)

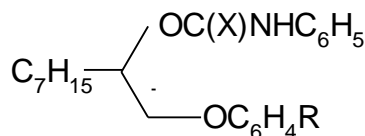
Aromatic ether groups containing urethane are highly effective as additives to lubricating oils. Moreover, representatives of this class of organic compounds are highly effective antimicrobial preparations.

Compounds (X – XIII) were studied as antimicrobial additives to lubricating oils (in the composition of oil M-8). The results are given in the

table 2. As table shows amides (compounds X - XIII) have fungicide properties and their effectiveness does not much depend on the position of a substituent in aromatic nuclear. They are more effective than industrial fungicide.

Amides containing a substituent in p-position are more effective than the substituents in other positions.

Table 2. Antimicrobial properties of 1-oxyphenyl-2-N-phenylureido-or-thioureidononanes (X - XVII):



X	R	Concentration, %	Diameter of depression zone of microorganisms, cm	
			Mixture of bacteria	Mixture of fungi
O	H	0,3	1,8	2,2
		0,5	2,2	2,8
O	o - CH <sub>3</sub>	0,3	2,1	2,8
		0,5	2,6	3,2
O	m - CH <sub>3</sub>	0,3	1,9	2,8
		0,5	2,7	3,4
O	π - CH <sub>3</sub>	0,3	2,3	3,5
		0,5	2,1	3,9
S	H	0,3	2,8	2,1
		0,5	3,2	2,9
S	o - CH <sub>3</sub>	0,3	3,1	2,4
		0,5	3,9	2,6
S	m - CH <sub>3</sub>	0,3	2,9	2,5
		0,5	3,5	2,8
S	π - CH <sub>3</sub>	0,3	3,1	2,1
		0,5	3,6	2,2
Vazin		0,8-1	3,0	2,8

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**Table 1. Physical and chemical properties of synthesized compounds (I-XIV)**

№№ Comp.	Yield %	T <sub>boil</sub> /mm Hg of T <sub>melt.</sub> , °C	n <sub>D</sub> <sup>20</sup>	d <sub>4</sub> <sup>20</sup>	MR <sub>D</sub>		Chemical formula	Analysis, %		
					Found	Calcul.		C	H	N
								Found /Calculated		
I	66,9	170- 171/1 35-36	-	-	-	-	C <sub>15</sub> H <sub>24</sub> O <sub>2</sub>	<u>78,18</u> 78,27	<u>10,05</u> 10,16	-
II	66,5	173- 174/1	1,4922	0,9532	76,13	76,221	C <sub>16</sub> H <sub>26</sub> O <sub>2</sub>	<u>76,67</u> 76,75	<u>10,29</u> 10,46	-
III	63,7	178- 179/1 39-40	-	-	-	-	C <sub>16</sub> H <sub>26</sub> O <sub>2</sub>	<u>76,70</u> 76,75	<u>10,29</u> 10,46	-
IV	68,8	179- 180/1 49-50	-	-	-	-	C <sub>16</sub> H <sub>26</sub> O <sub>2</sub>	<u>76,91</u> 76,75	<u>10,22</u> 10,46	-
V	70,3	144- 145/3	1,4702	1,9384	91,74	92,12	C <sub>19</sub> H <sub>30</sub> O <sub>3</sub>	<u>73,8</u> 73,98	<u>10,31</u> 10,45	-
VI	70,3	146- 147/3	1,4724	1,9392	92,16	91,9	C <sub>19</sub> H <sub>32</sub> O <sub>3</sub>	<u>73,8</u> 73,98	<u>10,33</u> 10,45	-
VII	70,9	143- 144/3	1,4922	0,9532	76,13	76,221	C <sub>16</sub> H <sub>26</sub> O <sub>2</sub>	<u>73,8</u> 73,98	<u>10,33</u> 10,45	-
VIII	73,5	134- 135/1	1,4758	0,9695	84,94	85,12	C <sub>18</sub> H <sub>28</sub> O <sub>3</sub>	<u>73,7</u> 73,98	<u>10,31</u> 9,63	-
IX	74,6	133- 134/1	1,4750	0,9692	84,96	85,12	C <sub>18</sub> H <sub>28</sub> O <sub>3</sub>	<u>73,60</u> 73,98	<u>9,41</u> 9,63	-
X	77,8	135- 136/1	1,4754	1,9681	84,89	85,12	C <sub>18</sub> H <sub>28</sub> O <sub>3</sub>	<u>74,08</u> 73,98	<u>9,85</u> 9,63	-
XI	71,2	55-56	-	-	-	-	C <sub>22</sub> H <sub>29</sub> O <sub>3</sub>	<u>74,18</u> 74,36	<u>8,01</u> 8,17	<u>8,85</u> 3,94
XII	70,8	45-46	-	-	-	-	C <sub>23</sub> H <sub>31</sub> NO <sub>3</sub>	<u>74,62</u> 74,79	<u>8,31</u> 8,4	<u>3,61</u> 3,79
XIII	71,9	48-49	-	-	-	-	C <sub>23</sub> H <sub>31</sub> NO <sub>3</sub>	<u>74,65</u> 74,79	<u>8,18</u> 8,4	<u>3,67</u> 3,79
XIV	76,1	46-47	-	-	-	-	C <sub>23</sub> H <sub>31</sub> NO <sub>3</sub>	<u>74,65</u> 74,79	<u>8,18</u> 8,4	<u>3,67</u> 3,79

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## BIOGRAPHICAL APPROACH AS A SCIENTIFIC AND THEORETICAL PROBLEM

**Abstract:** *There are few authors in the world literature who can attract attention of the reader. Especially, gaining of authority in art and literature promotes changes and development of moral thinking of the nation. It can be seen in literature and life of people of Orient and West. The article analyzes the life of the first Uzbek writer Abdullah Kodiri on a biographical basis. The biographical method is interpreted as the main method of studying creativity. For the first time in Uzbek literary criticism, the life of Kadiri was studied by biographical methods. Father Kodirmuhammad plays a special role in the formation of the writer. Grandfather Kodirmuhammad bobo is a living witness of historical events in the novels and played an important role in the artistic expression of reality.*

**Key words:** *biographical method, writer, Uzbek novel, Abdullah Kodiriy, Kadir Muhammad bobo.*

**Language:** *Russian*

**Citation:** Panjievna, S. T. (2019). Biographical approach as a scientific and theoretical problem. *ISJ Theoretical & Applied Science*, 04 (72), 377-381.

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### БИОГРАФИЧЕСКИЙ ПОДХОД КАК НАУЧНО-ТЕОРЕТИЧЕСКАЯ ПРОБЛЕМА

**Аннотация:** *В мировой литературоведении был разработан научно-теоретического метода. В статье, биографический метод упомянут как основной методикой изучения творческой личности, а также была анализирована, этим методом, жизнь первого узбекского романиста А.Кадыри. Совершенствование писателя заслуги его отца Кадырмухаммад бобо имели особое значение. В романах писателя Кадырмухаммад бобо был участником в исторических войнах, а также живым свидетелем события сыграл большую роль в интерпретации реальных явлениях.*

**Ключевые слова:** *Биографический метод, творческая личность, писатель, узбекский роман, Абдулла Кодирий, Кадыр Мухаммад бобо.*

### Введение

Исследование биографии писателя в тесной связи с его творчеством позволяет решать многие проблемы. Очень часто мы изучаем, анализируем, обсуждаем произведения различных писателей, оставляя без внимания его личность и жизнь. Личность художника изучалась в мировой литературе как научная проблема, разрабатывались его собственные принципы. Изучение личность художника различными методами: биографическим, психологическим, социальным, герменевтическим, сравнительным и аналитическим методами помогает повысить роль и значимость работы. Биографический метод – это способ восприятия, анализа и оценки художественной литературы, при котором

биография и личность писателя становится определяющим моментом творчества. Любое произведение является оригинальным и историческим. Творчество – это явление, объединяющее не только художественные, но и духовные, культурные, философские, исторические и религиозные корни.

### Материалы и методы

В настоящее время усилилось внимание изучению новой узбекской литературы начала XX века, её духовно-культурного развития, многогранной и разнообразной природы, а также истоков социально-политических, литературных и психологических факторов, породивших новую узбекскую прозу. При осмыслении

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художественного произведения как культурное, историческое, социальное явление, необходимо исследование его автора не только как литературно-эстетическую проблему, но и в разрезе философских, социальных, психологических проблем. В мировом литературоведении проблема творческого лица и художественного героя изучается в непосредственной связи с явлением творческой гармонии. На сегодняшнее время актуальным является изучение истории национальной литературы, художественного наследия в контексте мирового литературоведения с помощью объективных, передовых научно-методологических методов.

Наследственные особенности творческого лица являются ведущим условием, при этом творческое лицо повторяет на примере себя качественные признаки своих предков, долгое время хранит в себе историческую родословную историю. Доказано, что в самые сложные моменты жизни, при чрезвычайных обстоятельствах проявляют себя генеалогические особенности. Желает того или нет, подсознательно или неосознанно человек наследует наследие предков. Изучение творческого лица в неразрывной связи с наследственными признаками очень полезно для познания характера его природы и характера героя произведения.

Как известно, среди предков великих людей могут быть одаренные люди и даже гении. Амир Темур был признан гениальным человеком в политике, социальной активности. Его предки и потомки в этой отрасли превосходили других. Согласно сведениям исторических источников темуридские царевичи обладали большим творческим потенциалом и незаурядным поэтическим талантом. Гениальные люди, оставившие след в истории – Улугбек Мирзо, Бабур Мирзо, Хусайн Мирзо были потомками Амира Темура. С учетом того, что подавляющее большинство из 21 одного темуридского царевича, включенного в антологию Алишера Навои, были авторами диванов, можно смело говорить о роли генетического фактора в творчестве.

К сожалению, определение биографии как “жанра жизнеописания” недостаточно, поскольку за дефиницию мы принимаем буквальный перевод слова. Еще недавно считалась, что биография “дает картину жизни человека, развитие его личности в связи с общественными обстоятельствами эпохи” [10]. Теперь же, согласно “Литературной энциклопедии терминов и понятий”, биография “предполагает художественное или научное осмысление истории жизни личности, нацеленное на поиск и выявление истоков общественно значимой

деятельности человека в его индивидуальном биографическом опыте” [5].

Ибо, как утверждает основатель биографического метода Сент- Бёв: «Решающей субстанцией литературного творчества является конкретная, индивидуальная личность самого творца. Произведение — это «заговорившая личность», а личность - это душевный мир художника, обретший адекватную словесную плоть» [9]. Глубокие

переживания и страдания, перенесенные творческим лицом, непременно оставляют свой след в каждом его произведении. Автор - это тоже живая плоть, в которой чувствуется влияние генов. Писателя понять нелегко, он не раскрывает своих секретов. Юнг считает, что художественное творчество - это духовная деятельность. “Тайна творческого начала, так же как и тайна свободы воли, есть проблема трансцендентная, которую психология может описать, но не разрешить. Равным образом и творческая личность – это загадка, к которой можно, правда, приискивать отгадку при посредстве множества разных способов, но всегда безуспешно [8]. В свое время Ю Лотман предупреждал, что “смешение этих двух типов книг — биографии автора и анализа им созданных произведений — редко приводит к удаче” [6].

Узбекский писатель Назар Эшанкул пишет о творчестве «Творчество - это чувство величия и понимания силы Господа». [11]. Автор описывает творение как божественное событие, а художник является представителем духовного мира. Проблема личности очень важна как для настоящего и будущего литературы, так и для судьбы нации. Проблема личности художника изучается в восточно-мусульманском мире другом ракурсе. Отличается от взглядов западных ученых.

Человек является как социальным, так и биологическим созданием. По утверждению психологов, ребенок набирает основной запас слов до пяти лет, а на протяжении оставшейся жизни использует этот лексический багаж и дополняет его. Не зря говорят «Yoshlingda olganing toshga yozganing», («Знания, полученные в детстве, прочнее камня»), В силу этого основным в воспитании ребенка считается семейный очаг и окружающая его среда. Няня Пушкина, бабушка Айбека, бабушки Хамида Алимджана и Чингиз Айтматова сыграли определенную роль в раскрытии таланта будущих поэтов и писателей, восполнении их духовного «багажа», формировании их мировоззрения.

Мы анализировали историю написания первых узбекских романов относительно семейного окружения писателя. Генетические и наследственные особенности писателя изучаются в психогенетике. Влияние наследственного

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фактора на творчестве очень велико. Мы решили исследовать эту проблему на примере жизни и семейной обстановки Абдуллы Кадыри, поскольку несомненно, что за великим феноменом Абдуллы Кадыри скрываются труды близких ему людей. Судьбе было угодно, чтобы в молодые даже по европейским стандартам годы, а точнее в 24 лет, Абдуллы Кадыри создал первый узбекский роман - произведение нового в начале XX века направления в узбекской литературе, которое не могло появиться на пустом месте. Этот процесс имел несколько источников. В источниках написано, что писатель был загадочным и скрытым, очень религиозным человеком. Учитель писателя в источниках не упоминается. Ответы на вопросы, кто был первым учителем Абдуллы Кадыри, на какой почве появился первый узбекский роман и почему его интересовала историческая тема, мы постараемся найти исходя из семейного окружения писателя.

До сих пор исследователи обращали внимание на социальные особенности семьи писателя. Сотти Хусайин утверждал, что Абдуллы Кадыри был из «мелкой буржуазии», а Иззат Султан писал, что он - «сын торговца». В книге «Чудо Кадыри» У.Норматов отметил, что писатель был «сыном безызвестного, простого старика Кодир бобо» [5], а в конце книги в статье «Поклон отцу», уделяя особое внимание личности отца писателя, утверждал, что последний был «золотым звеном» в совершенствовании писателя. Подобные взгляды являются первыми набросками биографии писателя. Чтобы не повторять утверждения наших наставников, мы хотим решить вопрос о роли семьи в формировании творческой личности и процессе превращения жизненной правды в художественную действительность на материале произведений Х.Кадыри «Отамдан хотира» («Об отце»), А.Кадыри «Диёри бакр», Ш.Кадыри «37-xonadon» («37-й дом»).

Анализ текста в литературоведении может внести ясность в решение многих проблем и раскрыть истинные причины событий или явлений. Вот что пишет Кадыри в 1926 году в судебной речи: «...сначала я не совсем понял — в богатой семье я родился или бедной» [4.84с]. Не сложно понять, что писатель не может признать свою состоятельность или бедность. Не стоит забывать, в каких условиях и при каких требованиях было написано данное признание.

Кадырмухаммад Хаджимуhammad угли был физически крепким, энергичным, грамотным человеком, в молодые годы служил при дворе ханов и беков, спустя годы после захвата Средней Азии Российской империей в 1865 году открывает в Старом городе небольшую бакалейную лавку. По торговым делам ему довелось побывать в далеких странах, например в Карачи [1], до

глубокой старости ему приходилось заниматься земледелием и садоводством, чтобы содержать семью. У Кадырмухаммада бобо было трое сыновей, после старшего Рахимберди (1879) один за другим умирают 12 детей. Абдулла Кадыри (1894) родился, когда отцу было около 72-73 лет. Его мать Жосиятбиби говорила, что Абдуллу она получила после того, как похоронила двенадцать детей. Третий сын Кудратилла (1897) родился, когда Кадырмухаммаду было 76-77 лет. Несмотря на то что деньги на жизнь доставались с трудом, отец освобождал детей от работы, если видел их желание учиться. В воспоминаниях Абдулла Кадыри пишет, что его братьев частенько наказывали за пренебрежительное отношение к учебе, тогда как он никогда не получал выговора [4.82 с]. Абдулла любил школу, был очень смышланным, старательным, но молчаливым ребенком, любил одиночество. Естественно, что Абди (так его называл отец) был непосредственным участником бесед отца с его старыми друзьями, которые приходили его навещать и многое рассказывали, вспоминая былое.

Дедушка по материнской линии Азиз суфи служил правителю Ташкента Азизбеку, а со старившись, стал муэдзином в местной мечети. Не исключено, что Абдулла частенько был свидетелем бесед между Кадырмухаммадом и Азизбаем. Под влиянием этих бесед писатель постепенно в уме формировал предварительные наброски проекта будущего романа, создавал первые штрихи разбросанных эпизодов.

Кадырмухаммад бобо был хорошим знатоком национальных мотивов и любил рассказывать исторические легенды, предания, любовные, приключенческие рассказы. Все сыновья с интересом слушали эти рассказы, но только Абдулла осмелился объединить эти рассказы единой идеей и вернуть их своему народу в новом виде, превратив в художественное произведение. Сделать это ему позволили его талант и сила рассказчика, унаследованная им от своих предков. «Гений - это владыка, собирающий вокруг себя своих подданных» [3]. Отвага, трудолюбие, требовательность Кодирбобо перешли к его сыну Абдулле. Айбек пишет: «Он (Абдулла Кадыри) был настолько трудолюбивым, что не каждому творческому лицу дается такая способность». Х.Кадыри подтверждает слова Айбека: «...не будет преувеличением, если скажу, что он писал настолько быстро, что его темп можно сравнить с темпом стенографиста» [4,с.84]. Кодирбобо скончался в 1924 году, об этом было напечатано на страницах газеты «Туркистон», где было отмечено, что мать Кодирбобо умерла в 117, а брат в 106 лет.

Вот что пишет автор об отце в журнале «Инкилоб» («Революция») в 1922 году: «Отец

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родился в 1242 году по старому летосчислению, в 1823 по новому, в Ташкенте. Жил во времена правления туркестанских ханов Шералихана, Худаярхана, Маллахана и ташкентских беков Мухаммеда Шарифа, Салимсакабека, Азизбека, Нормухаммеда кушбеги, Каноат шаха, Маллахана, сопровождал в Кашгар известного Якуббека из Пскента. Таким образом на протяжении сорока лет был свидетелем правления мусульманских ханов, пятидесяти лет — правителей Царской России и вот последних пяти лет — правления трудового народа» [4,110 с].

В детстве отец мой, более века живший при правлении ханов и многое повидавший на своем веку, рассказывал нам интересные и забавные случаи из жизни. Эти воспоминания пробудили во мне интерес к истории. Затем, ознакомившись со многими источниками по истории тех времен, у меня появилось желание создать произведение в жанре западной литературы. Исторические события будто кипели в моей голове, они не давали мне покоя, однако я не мог представить, как можно нанизать все эти истории на одну; нить и изложить все на бумаге:

В один прекрасный день из города в наш сад к отцу приехал один старик. Отцу в то время было около ста, а гость выглядел на 5-10 лет моложе. Отец спросил у гостя: «Сколько у вас детей от жены в Андижане?», их беседы я понял, что это из Ташкента, у него есть семья, дети. Однако в молодые годы торговым делам он уехал в Андижан, долго жил там, женился, обзавелся детьми, состарившись, верится к себе на родину: Эта обыкновенная история гостя будто дала решение моей проблемы и набросала предварительные штрихи моей будущей книги» [4, 123 с].

Этот фрагмент, который помог писателю найти определенную форму его разбросанным мыслям, может многое прояснить в истории создания произведения «Минувшие дни».

По мнению Бахтина, мир эпоса мир «предков и дедов», «лидеров» и «лучших». Исполнитель и слушатель эпоса вступаю в связь с людьми прошлого, с событиями, происшедшими с ними, рассматривает его как идеал, сравнивает его с современностью, людьми своей эпохи. Ибо, по мнению современного человека его эпоха не совершенна, а будущее – абстрактно. Лишь прошлое совершенно, достойно поисков идеала. [2]

Согласно этой теории, историческую эпоху времени Кадырмухаммада бобо Кадыри помещает в художественную форму на основе единой системы. И в эпосе живёт Алп, создаёт события, а его потомки слагает дастаны об Алпе. Кадыри систематизацию процесса на основе художественных законов выполняет на высоком уровне с точки зрения творческого потенциала.

Чтение множества исторических книг, знание арабского, турецкого, персидского, русского языков, знакомство с исламской философией, изучение различных литературных течений, знание в совершенстве народного языка, неустанный труд, потребность в передаче осмысленных вещей заложили фундамент для создания известного произведения. Появилась модель авторских идей - роман, учитывающий уровень грамотности народа и его вкус, систематизировавший все события, подчинивший их единой цели.

Основным рассказчиком следующего романа писателя был Кадырмухаммад бобо, он непосредственно участвовал в процессе помолвки Анвара и Раъно и имел дружеские отношения с Анваром. В «Воспоминаниях об отце» писатель пишет: «Я спросил у отца: События в романе «Скорпион из алтаря» на самом деле вам рассказывал Кодир бобо, как вы пишете в прологе романа?»[4,120 с].

Потомки ханов и подстрекатели-беки ради трона боролись в междоусобных войнах и проливали столько крови, что в результате царские войска один за другим захватили города Ферганской долины, а ханы не обращали на это внимания; мелкие причины привели к большим потерям. Чувство народного горя, потери независимости Абдулла Кадыри передал своими произведениями.

Не следует забывать, что немаловажную роль в становлении человека занимают наследственные признаки и являются ведущим фактором в познании вселенной. Но в реализации способностей следует отметить не только психогенетические факторы, но и ряд других факторов.

Абдулла Кадыри, бесспорно, изучил приемы повествования западных писателей - Толстого, Достоевского, Чехова, Тагора, Зайдона - и различные литературные течения. Однако мы предполагаем, что среди учителей Кадыри наряду с представителями классического философского наследия - Руми, Физули, следует называть и его отца.

Писатель, предпочитавший писать об «услышанных им вещах, в которые он верил сам», искал особый стиль, способный точно передать народное горе, и нашел прием, соответствующий вкусу и уровню народа. При изучении социального положения семьи писателя и его биографии исследователи часто не обращают внимания на личность его родителей, их цели, мечты, мировоззрение. Изучение личности писателя в тесной связи с его произведениями способствует развитию литературоведения и может привести к обобщающим выводам.

Кадырмухаммад, превратившийся в живую историю, воспитал в сыне любовь и стремление к

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творчеству. Разумный и рассудительный малыш «Абди», произведения которого способны прославить узбекский народ на весь мир, получил сначала свои знания в народной школе. Такие осведомленные люди как Кадырмухаммад бобо смогли вложить в его душу загадочные коды этой жизни, которые, воплотившись в качестве специальных программ и художественной концепции в его произведениях, смогли раскрыть внутренний мир самого автора. Родители, считающиеся старшими наставниками школы жизни, скрывающиеся за каждым великим феноменом, воспитывают народ подобно преданному делу учителю. В формировании мировоззрения, образа мышления и созидания мира Абдуллы Кадыри его первым учителем был отец, непосредственно влиявший на создание его

романов, что и побудило нас обратиться к этой проблеме.

### Заклучение

личность художника отражает философское понятие, как генеалогия, наследственность, религия и нация;

биографический метод является важным способом для обучения творчеству;

психобиографический метод подчеркивает психологию писателя и привлекает внимание к решению проблемы;

психогенетические элементы имеют особое значение в формировании творческой личности;

психогенетические категории играют важную роль в развитии романного мышления;

отец писателя Кадырмухаммад ота - великий рассказчик истории нации.

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## “CHARACTERISTICS OF THE MOTIVATION OF TRAVEL” IN JEAN-MARIE GUSTAVE LE CLÉZIO WORKS

**Abstract:** The article is devoted to a motive of travel that is one of the main characteristics of the small prose's motives in the works of Leclézio. The focus of the collection of stories "Mondo and other Stories" is mainly dedicated to the representations of the problems of children and adolescents.

**Key words:** story, tale, minimalism, chaos, doubt, light.

**Language:** Russian

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### К ХАРАКТЕРИСТИКЕ МОТИВА ПУТЕШЕСТВИЯ В ПРОЗЕ ЖАНА-МАРИ ГЮСТАВА ЛЕКЛЕЗИО

**Аннотация:** Статья посвящена характеристике одного из основных мотивов малой прозы Леклезю – мотива путешествия. В центре исследовательского внимания находится цикл рассказов «Мондо и другие истории», в которых мотив путешествия репрезентирует проблему взросления детей и подростков.

**Ключевые слова:** история, сказка, минимализм, хаос, сомнение, свет.

#### Introduction

Художественность является поэтикой. В литературоведении понятие поэтики существует в двух видах. Если для одних литературоведов поэтика означает «совокупность художественных характеристик творчества»<sup>1</sup>, то для других поэтика включает в себе «...элементы и свойства создания отдельного художественного произведения»<sup>2</sup> или является наукой «о путях, способах и формах создания художественно-языковых произведений, о структуре видов и жанров литературных произведений»<sup>3</sup>. В широком смысле, термин «поэтика» можно охарактеризовать как обозначающий «науку,

изучающую методы и средства образного описания, художественного применения»<sup>4</sup>. По нашему мнению, определение поэтики, данное М.Б.Храпченко, является итогом всех определений, а также оставляет место для изучения ряда других обозначений, различных сторон и свойств процесса художественного объяснения мира, в том числе, художественного метода.

Однако «внутренняя структура поэтического художественного произведения, литературных жанров и их развитие не стоят на месте»<sup>5</sup>.

В этой области образцом является предисловие к книге русского ученого-

<sup>1</sup> Тимофеев Л.И. Основы теории литературы. – М.: Высшая школа, 1976. – С.6.

<sup>2</sup> Введение в литературоведение / под ред. Г.Н.Поспелова. – М.: Высшая школа, 1988. – С.225.

<sup>3</sup> Виноградов В.В. Стилистика. Теория поэтической речи. Поэтика. - М.: Высшая школа, 1963. –

<sup>4</sup> Храпченко М.Б. Художественное творчество, деятельность, человек. – М.: Советский писатель, 1982. – С.399

<sup>5</sup> Храпченко М.Б. Художественное творчество, деятельность, человек. – М.: Советский писатель, 1982. – С.398

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литературоведа В.Ф.Переверзева «Творчество Гоголя». Отстраняя литературоведение и литературную критику от художественного произведения, ученый подчеркивает занятие другими науками. «Мой этюд, - писал В.Ф.Переверзев, – связан только с произведениями Гоголя и больше ни с чем». Ученый поставил перед собой цель «проникнуть как можно глубже» в особенности произведений Гоголя.<sup>6</sup>

Итак, «при изучении методов и средств образного описания жизни, художественного изображения» существует не только необходимость изучения «своеобразия форм рассказа и законов их развития»<sup>7</sup>, но и ознакомления либо с произведением, либо с данным литературным направлением, либо с творческими тенденциями и художественным методом писателя.

Исходя из вышеизложенного, в данной статье мы анализируем такие категории поэтики произведений Ж.-М.Г.Леклезю, как *пейзаж, образ, герой, портрет, личность*.

Леклезю не удовлетворяется только одним жанром: кроме романов и эссе он пишет сказки, рассказы, биографии («Диего и Фрида»), новеллы, произведения для детей («Путешествие в край деревьев»), раскраски («Облачные люди»), а также монографии, предисловия к различным статьям и произведениям. В художественных произведениях Леклезю особое значение имеет эпиграф. Эпиграф помещен в них не для украшения: он обозначает мотив рассказа, определяет главную тему, точно направляет читателя. Эпиграф выполняет три ключевые задачи.

Например, «Hé quoi! Vous demeurez à Bagdad, et vous ignorez que c'est ici la demeure de Seigneur le Marin, de ce fameux voyageur qui a parcouru toutes les mers que le soleil éclaire ?»<sup>8</sup>

Этот способ определяет характеристику Синбада: Синбад известный путешественник, он «обошел все страны под солнцем». Эта характеристика Синбада может быть отнесена и ко всем юным героям Ж.М.Г.Леклезю, в частности, к «Personne n'aurait pu dire d'où venait Mondo»; «Rien qu'à le voir, on savait qu'il n'était pas d'ici, et qu'il avait vu beaucoup de pays»<sup>9</sup>.

Еще никому не известный Мондо носит в самом себе путешествие, ощущение странствия, и это одна из его основных черт, бросающихся в глаза. В рассказе с этим названием повествуется о

том, как Мондо остановился в одном из портовых городов.

Подобно Мондо, герой рассказа «Он никогда не видел моря» Даниель «другой породы» (с.175). Поклонник «Тысячи и одной ночи» он очарован Синбадом, «il ne se mêlait pas aux conversations des autres, sauf quand il était question de la mer, ou de voyages» (с.175). Леклезю создал Даниеля очарованным образом Синбада, поместил это в эпиграф и развернул смысл **путешествия: это первый ключ**.

Несмотря на мнимость путешествия героя рассказа «Небесные люди» Митти Хоча, вымышленность путешествия Жубы из «Водяного колеса», нельзя сказать, что герои остальных шести рассказов также «не путешествуют» или «не любят путешествия». Итак, повествование о путешествии является призывом к путешествию или к открытию.

Эпиграф к «Рассказу о Синбаде» отвечает на вопрос проходящего мимо дома Синбада купца Хинбада, который не знает, кому принадлежит этот дом. Его вопрос звучит глупо. Синбад, будучи известным человеком, подчеркивает невежество Хинбада: «Что Вы сказали?.. [...] не узнали...» это показывает масштаб его неведения, неосведомленности об общеизвестном факте. Акцент остается и после прочтения эпиграфа, однако теперь читатели «Мондо и других историй» поставлены перед вопросом. Но данный выше ответ укоренился в сознании читателя, двустушия направляют его.

Эпиграф также дает понять, какова основная цель рассказа: **нельзя быть безразличным** к людям и вещам, нужно заботиться о них, понимать их. Это **второй ключ** эпиграфа.

Каждый из восьми рассказов сборника является подобным уроком, который оттачивает сознание юных читателей. Каждый юный герой раскрывает перед читателем новые стороны действительности. За каждым объектом вселенной стоит свой «Синбад», неизвестной для нас остается лишь только одна вещь.

Ти Шин живет в прекрасном итальянском доме со стенами темно-желтого цвета, расположенном в центре возвышенности рядом с морем. «simple, sans ornements de stucs ni mascarons, mais Mondo pensait qu'il n'avait jamais vu une maison aussi belle» (По мнению Мондо, в мире нет такого второго дома. с.44). Поэтому он назвал этот дом по цвету стен «La Maison de la Lumière d'Or» - «Золотым домом». Это усиливает поэтический образ жилища.

<sup>6</sup> Переверзев В.Ф. Гоголь, Достоевский. Исследования. – М., 1982. – С.44-45.

<sup>7</sup> Огнев А.В. О поэтике современного русского рассказа. – Саратов, 1973. – С.5.

<sup>8</sup> Le Clézio J.M.G. Histoire de Sindbad le Marin. – Paris : Folio Junior, 2000. – P.10.

<sup>9</sup> Le Clézio J.M.G. Mondo et autres histoires.- Paris : Folio PLUS, 2004. –P.11.



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Читатель рассказа «Он никогда не видел моря» может подумать что мы не говорим о море, представляя себя на месте людей, говорящих о «des bains, de la pêche sous-marine, des plages et des coups de soleil» (бани, подводная охота, пляжи и солнце, с.176), Мондо, как и Даниель также указывают читателю путь и открывают ему глубину моря: «Ce n'était pas de cette mer-là qu'il voulait entendre parler. C'était d'une autre mer, on ne savait pas laquelle, mais d'une autre mer» (с.176).

Итак, эпиграф является посланием, направленным к читателю под символом путешествия. В рассказе содержится руководство к путешествию с рассказом. Однако теперь необходимо определить природу данных текстов.

Здесь также помогает эпиграф: это **третий ключ**. Приведенный нами эпиграф взят из «Histoire de Sinbad le Marin» - «Истории Синбада-морехода». Французское слово «histoire», взятое из названия сборника «Mondo et autres histoires», дает полную информацию читателю о жанре восьми рассказов. «Когда я начал писать, хотел писать только исторические рассказы» - сказал Леклезю в беседе с Карлом Вотруа (Lire, n° 230, nov.1994). На первый взгляд, слово «histoire» может быть заменено словом «conte» без особой разницы. Переводчик Галлан назвал сборник «Mille et Une Nuits» («Тысяча и одна ночь») «Арабскими сказками» - «Contes arabes». <sup>10</sup> Это позволяет считать слова «histoire» и «conte» синонимами.

Однако значение данных «рассказов» этим не исчерпывается, т.к. слова «рассказ» - «сказка» приобретают в нашем подсознании другой оттенок. Действительно, это божественное слово напоминает читателю целый мир – его детство. Удовлетворяя свое воображение, или утихомиряя беспокойство, маленький ребенок не требует от своей матери поэмы, легенды или повествований, он просит только: «Расскажи мне сказку». Простую сказку. Будучи социальным символом, слово «рассказ» используется в названии сборника Редьярда Киплинга «Рассказы просто так» («Just So Stories»), описывая простые сказки для детей. Киплинг работал над ними с присущими детству чистотой и простотой. В этом смысле каждый рассказ Леклезю может быть продолжением его произведений.

Давая читателю третий ключ, эпиграф раскрывает план Леклезю: раскрытие читателю незнакомой ему или отрицаемой им истины. Эпиграф раскрывает цельность сборника, эту цельность можно сравнить с композицией рассказов.

Леклезю, видя в детях божественную красоту, считает их будущее чистым и безоблачным, и не допускает во взаимоотношениях между ними и жизнью никаких препятствий. Он любит детскую радость, смех, простоту, и противопоставляет их надуманной серьезности взрослых. Детство – прибежище тоски. При написании «Мондо и других рассказов» «была необходима неизменность». Детство – период уязвимости. Чистота души, сердечные горести и боль от детских ран видны на лицах людей: «Они видны в серьезности взгляда, сжатых губах, линии бровей. Старые детские раны быстро бросаются в глаза. Они не обвиняют взрослых, не боятся их и сами знают, что такое зло» («Чужеземец»).

Первая новелла сборника Леклезю «Мондо и другие рассказы» также называется «Мондо». Поделенная на шесть частей без названия и нумерации, данная новелла рассказывает о пяти днях жизни мальчика по имени Мондо, по сути описывает различные мгновения жизни мальчика. Это:

- один день до встречи Мондо с рыбаком Джорданом;
- одна ночь до встречи Мондо с Дади, Лоли и Казаком;
- один день после знакомства Мондо и Ти Шина;
- один день, когда Мондо встретился со стариком на пляже;
- последний день Мондо.

Изображая протяженность времени через движение солнца или движение волн моря, через описание дней, похожих один на другой, Леклезю приводит своего персонажа и читателя в утраченный рай – в детство.

Героев «Мондо и других рассказов» объединяет любовь к природе. Эти дети находятся в гармонии со вселенной, природой, небом, солнцем, морем, ветром и звездами, дружат с животными. Они чувствуют себя счастливыми в объятиях природы.

По мнению французского литературоведа, исследователя «Мондо и других рассказов» Леклезю Андре Дюрана, «город, в котором жил Леклезю, который он не любил и отказался его называть в своих произведениях, мог быть Ниццей» был городом, в котором жил Мондо. – «La ville pourrait être Nice, où Le Clézio vécut, mais qu'il détesta et se refusa à nommer dans ses œuvres.» <sup>11</sup>

В интервью с Жераром де Кортанзе Леклезю так говорит о Ницце:

- Я действительно связан с Ниццей. В отращении к этим пальмам и виллам в стиле

<sup>10</sup> Антуан Галлан (1646-1715) шарк тиллари ва адабиёти буйича мутахассис. У “Минг бир кеча”ни француз тилига таржима қилган (У.А.).

<sup>11</sup> [www.comptoir litteraire.com](http://www.comptoir litteraire.com)

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рококо, словно в аду, я чувствовал себя далеким и чужим по отношению к остальному миру. Я должен был найти место, где все возможно, где я бы освободился от клетки, где возможна работа ума и сознания.

Герои Леклезю также неприязненно относятся к городам, с которыми они связаны. По их мнению, город – это зло, уничтожающее человека. Город, с населением, никогда не прекращающим движение и свою разнообразную деятельность, превращается в место, убивающее человека. Как в приведенных строках Конате, в произведениях Леклезю горожане потеряли сами себя:

- Город с хорошо смазанным механизмом ареста, подлости и уничтожения, ставший полным и точным символом современной цивилизации, изображается похожим на большую тюрьму, лабиринт и безжалостного дракона, обладающего силой порабощения.

Главный герой каждого рассказа – ребенок. Природа их схождения своеобразна: Мондо в десять лет, не будучи способным даже прокормить себя, вынужден жить один в городе; Гаспар предпочитает жить с кочевниками, отказываясь от всех удобств городской жизни; Митти Хоч может находиться несколько часов под открытым солнцем, а Даниель отказывается от всего ради своей мечты о море. Эти дети не просто персонажи, а главные герои рассказов.

Отражение героев дает возможность Леклезю вносить различные изменения в структуру произведения. Этот метод особенно часто используется в изобразительном искусстве, например, внутри одной картины изображается вторая. Этот метод расширен в творчестве французского писателя Андре Жида, подобно аналогичному методу в изобразительном искусстве, внутри одного рассказа описан другой, тем самым усиливая его воздействие.

Герои детских произведений малого жанра Леклезю мысленно или по-настоящему встречаются с большим миром, который дает им

бесценный и чудесный опыт. Они понимают неизменность природы, существование ее законов и жестокость людей.

Герои рассказов Леклезю любят природу. Они взрослеют, объединяются с освободившими их стихиями. Если Мондо вырос в городе, то Жуба живет в пустыне, он с помощью волов вращает водяное колесо и приводит воду в безводную степь. Природа, безусловно, влияет на душевное состояние подростка.

### Conclusion

Отдельное значение имеет единство формы и содержания в художественной литературе, описывающей все грани жизни.

Содержание бессмысленно без формы, форма не может создать представление без содержания. Форма излагает содержание, одно не может быть без другого. Даже самое простое чувство или мысль прежде всего нужно выразить словами.

Представляя себя на месте героев рассказов, детское сознание растет, изменяется и обогащается, герои направляют читателя, и Леклезю тоже стремится своими рассказами обогатить мировоззрение детей.

Каждый из героев рассказов Леклезю для детей и подростков переживает приключение, во время которого они иногда могут отступать. Они переживают не только случайности или чувства, но идут по пути, указанному им другими людьми, друзьями, прошедшими тяжелые испытания.

Ж.М.Г.Леклезю посвящает свои произведения малого жанра в основном жизни детей и подростков, уделяя большое внимание событиям и трудностям, встречающимся им на пути взросления. Люди, препятствующие осуществлению детских безоблачных мечтаний – взрослые, их родители и родственники. Это можно наблюдать не только в сборниках рассказов и новелл «Мондо» и «Круг и другие события», но и в таких произведениях крупного жанра, как «Пустыня».

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SECTION 31. Economic research, finance,  
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## OPPORTUNITIES FOR STABLE TRANSFORMATIONS IN ECONOMICS AND THEIR EFFICIENT USAGE IN UZBEKISTAN

**Abstract:** This article discusses the structural changes in the sectors of the regional economy and their impact on economic growth and growth of the gross regional product. The author proposed measures to achieve effective structural reforms in the regional economies.

**Key words:** structural shifts, economic growth, structural shifts, economic growth, GDP, innovation.

**Language:** English

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### Introduction

In recent years, Uzbekistan has been paying more attention to improving the efficiency of structural changes in the economy. Particularly, the share of industry, services in the economy, while the share of agriculture in the economy is decreasing. As it is known, aggregate output of all sectors of the economy will be reflected in the indicator of gross domestic product (GDP) and implementation of structural changes in the economy will have a direct impact on the change in GDP. One of the methods of calculating GDP is the value added method that gives significant conclusions in the analysis of the composition of the GDP and the shifts in GDP, as determined by this method. The share of individual sectors in the total added value of the economy, its change, will allow to assess the state of development of the economy and the expected economic growth.

### Literature review

Structural shifts in the economy have been thoroughly studied by leading economists of the world and have thoroughly analyzed the issue. In particular, the well-known economist P. According to Samuelson, "Structural changes in the consumption pattern determine the size and structure of the global demand, and the effects of long-term regulation of economic development on the structural adjustments in the field of savings. At the same time, structural changes in the consumption and savings sectors are the fundamental factors that contribute to the

development of productive forces and production relations. Factors driven by macroeconomic dynamics include scientific and technical progress, changes in the preferences of consumer products, and the production factors. "[2, 452].

P. Kuznets notes that "economic growth in the country can be assessed with the ability to meet the growing needs of the population for a long time. These growth opportunities are based on the development of techniques and technologies, the essential changes in the structure of the economy and the ideology "[3, 104].

Russian economist scientist N. Kondiratev believes that "there are certain limitations for the maintenance of the economic balance, which sometimes affects the balance of the economy. It turns out that the signs of the limitation and accuracy, the economic elements and the equilibrium of the situation, the appearance of such a phenomenon can lead to the emergence of economic equilibrium or the adequacy of the static state of the economy, and the emergence of special theories of statics. "[4, 298].

Y. Shumpeter believes that "the key momentum that drives the economic system will depend on the renewal of the consumer structure, the application of new methods of production and delivery of goods, the improvement of market activities, and the application of modern forms of economic management" [5, 122].

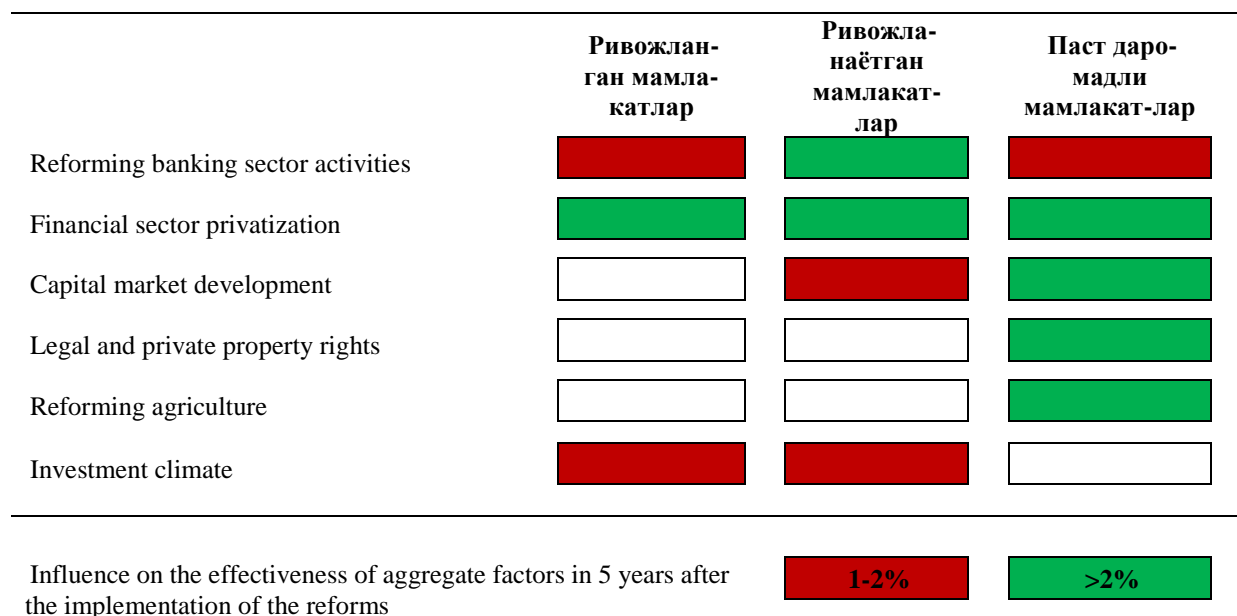
Structural shifts in national economy sectors are the result of technological, specialization, demand and a number of factors in the production process of the

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economy. But the structural changes that are carried out by the influence of any factor are not always effective. The resulting structural changes in the economic sectors are the result of a period when the economic model of growth or decline in the economic life of the country.

Therefore, the socio-economic policy of the country is crucial to ensuring the effective transformation of the economy and ensuring sustainable economic growth. The article assesses the impact of factors on the overall factors that are a key factor in sustainable economic growth (Figure 1).



**Fig.1. Increased effectiveness of structural reforms and aggregate factors.**

As can be seen from Figure 1, banking sector reforms, privatization of the financial sector, the development of the capital market and the improvement of the investment environment for transition countries and low-income countries allow for effective structural transformation in sectors of the economy.

According to the International Monetary Fund, structural changes in the country's market economy are the basis for sustainable economic growth. Developing options for implementing structural changes in Uzbekistan, based on which, will help create scenarios for the development of the country's economy.

The development model of the country's economy up to 2008 has yielded fertility, including an average of 8.5 per cent of economic growth rates in 2000-2008, inflation at 4-5 per cent, devaluation of 10-15 per cent, average rate of USD exchange rate, positive balance of the budget (Fig. 2).

However, after 2008, the world economy recession (financial and economic crisis), the negative dynamics of prices of the main foreign commodity goods in the world market in 2014 and the sanctions of Russia and the West, one of the main trading partners of Uzbekistan, have had a negative impact on the economy of Uzbekistan. As a result, the problems

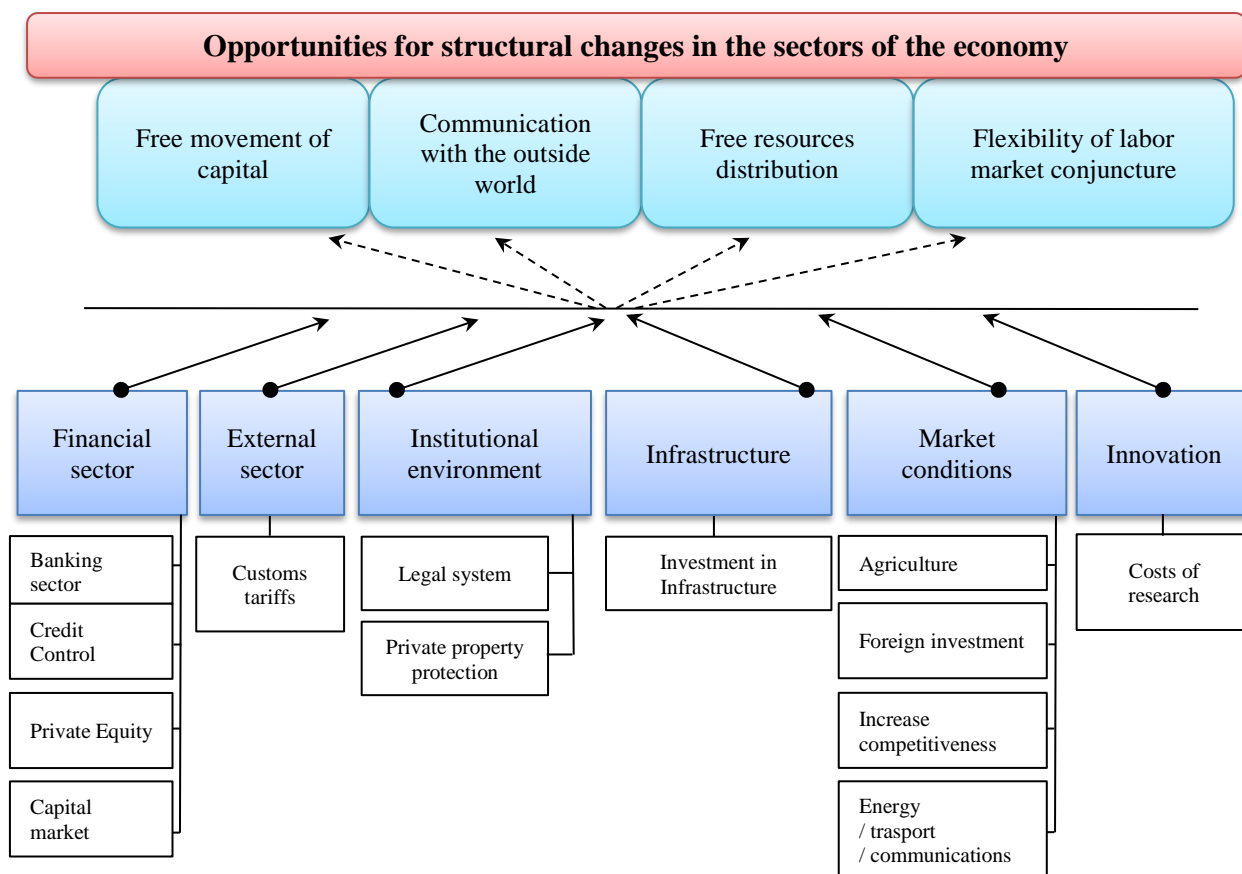
that have aggravated for about 8 to 9 years have increased the likelihood of threatening the stability of the country's economy.

In order to overcome the burden of the economy and possible risks over the years, President of the Republic of Uzbekistan Sh. Mirziyoyev, a number of reforms have been undertaken to radically change Uzbekistan's economic model and boost its competitiveness, including the Movement Strategy [1] in February 2017 to identify the target and sequence of all reforms, liberalization of pricing policy, liberalization of operations, step-by-step transition to market mechanisms of currency exchange rate formation, the distribution of raw materials on the basis of full market principles and many other measures were taken. It created the basis for radical changes in the national economy.

Based on the results of the study, the country is primarily affected by structural changes in the economy as a fundamental factor influencing the free movement of capital, the level of communication with the outside world, the free allocation of resources and the flexibility of labor resources, and the economic conditions that determine the factors of these factors. These factors were assessed as opportunities for structural change in the economic sectors (Figure 2).

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**Fig.2. Possibilities of structural transformation in the sectors of the economy.**

Figure 3 shows that in order to achieve structural transformations in the economy, it is necessary to prepare all infrastructure and regulatory legal frameworks for the freedom of capital movement, to introduce effective mechanisms of communication with the outside world, to form an institutional environment based on the formation of a competitive environment, the need to create a sufficient infrastructure for the market, a competitive environment in the markets, and a full freedom of action of innovation. i.

Let's look at the opportunities facing the structural transformation of the sectors of the economy one by one.

The financial sector constitutes the rule of the financial market managing the state for the movement of capital in the country, ie the banking system, the fiscal system, capital market, attracted investments, private equity, etc. By the end of 2018, there are 28 banks operating in the banking sector, of which 11 are state-owned banks. According to the results of 2018, the assets of the banking system increased by 128 percent compared to the respective period of the previous year, liabilities by 126.2 percent, loans by 148.9 percent and deposits by 119.7 percent. However, this growth was mainly attributable to the

state banks, whose share in bank assets was 83.1 percent, liabilities - 83.3 percent, loans - 87.9 percent, deposits - 66.4 percent. As it is evident, the share of state-owned banks in the economy's investment was high, and 66.4 percent of state-owned banks operated bank deposit operations, one of the mechanisms providing money circulation in the economy [7]. This, in turn, means that most of the loaned loans are focused on public-private trusts. Moreover, the stock market in the Republic of Uzbekistan is weakly developed and the stock market capitalization is low. This indicates that the country's financial system is basically similar to a banking-based German model.

The external sector represents a set of economic policies, such as the country's customs policy and level of protectionism. In addition, it is understood that customs clearance procedures and costs incurred by the product are understood. Effective functioning of this sector ensures the stability of the domestic market and stability of the economy of the country. After the liberalization of the currency market in Uzbekistan in September 2017, the Decree of the President of the Republic of Uzbekistan "On measures to further regulate the foreign economic activity of the Republic of Uzbekistan" was adopted on September 29, 2017 in order to prevent the devaluation of the

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national currency on the country's domestic market. In line with this Resolution customs duties were revised and tariffs for certain goods nomenclature were zero, customs duties on certain commodity nomenclatures were reduced by 2 times. In addition, green corridors were built at airport customs. Individuals are allowed to bring consumer goods from neighboring countries to a certain level. As a result, the Republic of Uzbekistan has achieved 49.79 points in international trade (2017 44.31) in the Doing Business Business Index, annually published by the World Bank. [8]

Institutional environment. In the conditions of the socio-economic life of the country, a number of measures have been undertaken to improve the institutional environment of the country in recent years. In particular, the abolition of unscheduled inspections of entrepreneurs has been abolished, and the licensing and licensing procedures for business activities have been simplified and simplified.

Market conditions. In the recent years, a number of measures have been taken to introduce economic relations in the market economy, including a number

of clusters in agriculture, the formation of prices for energy products, and the mechanism of main strategic distribution of goods through commodity exchanges.

Innovations. Innovative Development Strategy of the Republic of Uzbekistan has been adopted with the purpose of coordination and implementation of the main directions of innovation activity in the Republic and adoption of the Strategy of Innovative Development of the Republic of Uzbekistan, which will implement the Strategy of the Republic of Uzbekistan till 2030 The main directions for increasing the global index of indices were up to 50 levels.

## Conclusion

Based on the above, it is possible to say that the opportunities created for the structural transformation in the economy of our country and the measures taken on their utilization ensure the development of our national economy and their improvement will contribute to the increase of Uzbekistan's international standing and reputation.

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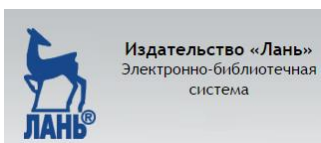
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