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ANALYSIS OF THE POSSIBILITIES FOR USING LANGUAGE MODELS IN TOUR PROGRAM DEVELOPMENT

Abstract. This article examines the possibilities of using modern language models such as GPT-4, Google Gemini, YandexGPT and others for developing travel programs. The key advantages and limitations of these technologies in the context of the tourism industry are analyzed, including their ability to automate processes and offer more personalized tours. The article discusses how language models can help improve customer service by helping to quickly generate ideas and develop programs taking into account individual preferences of tourists. Particular attention is paid to the prospects for their integration into the work of travel companies and the impact on the optimization of tour operators. The issues of the correctness of the information provided by language models and the need for the participation of professionals in the interpretation of the results are also discussed.

Keywords: tourism, tour operating, tour product, information technology, neural networks, large language models.

Introduction.

The tourism industry, and particularly tour operator activities, have always been strongly influenced not only by internal factors but also by external environments. Tourism is affected by economic, social, demographic, cultural, technological, and other factors. Every participant in the tourism market must promptly respond to these changes; otherwise, they risk losing profits, incurring losses, or even exiting the market.

Information and technological factors have a particularly strong impact on the tourism industry. In the mid-1960s, the advent of global distribution systems (GDS) provided a powerful impetus for the development of international tourism in the 1970s and 1980s. Initially, GDS were created by airlines to automate the process of selling airline tickets. However, these systems eventually allowed for booking hotel rooms, renting cars, purchasing cruise tickets, and more. Soon, every travel agency used these software products, as refusing to do so meant losing competitiveness.

Recently, humanity has become acquainted with the concept of «neural networks». Neural networks are mathematical models that mimic the human brain, capable of learning, assimilating

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vast amounts of information, and generating something new based on this information. Neural networks that generate text and can provide detailed answers to user questions are particularly popular [1].

These neural networks are called large language models. The first of these appeared around 2018, and by 2022-23 they were already being widely used. The first popular large language model was ChatGPT-3 from OpenAI [2]. It was created in 2020 and became available and free for every authorized user in 2022. Since then, the popularity of language models has been steadily growing, and more and more specialists from various fields are turning to their use.

How appropriate is the use of large language models in the tourism industry? Can a neural network generate a ready-made tour product? In this article, we aim to understand how capable language models are in facilitating the work of a tour operator.

Materials and methods of research.

The essence of tour operator activity is the formation of a tour, a complex of tourist goods and services. This complex includes transportation services (from the point of sale to the tourist destination and within the tourist route), accommodation (mainly group), food and leisure (excursions and entertainment), and more.

The search for possible options for accommodation and transfer today cannot be a task implemented by AI. In this case, it is logical to choose partners independently based on existing agreements, the established practice of the tour operator's relationships with contractors, the reputation of potential partners, and the assessment of the quality-to-cost ratio of their services [3].

However, when it comes to creating tour programs (both group and exclusive), large language models can become a tool capable of optimizing the work of the tour operator. Unlike a tour operator employee, language models working on neural networks are not limited by cognitive experience and can offer many options based on the preferences of potential consumers. Language models can provide unconventional solutions that help create a unique product, distinct from competitors' products, but with no less potential [4].

When working with exclusive tours, in case the consumer makes changes to the tour program, language models can quickly make the appropriate adjustments without breaking the overall logic and structure of the program. Additionally, they can assist in the process of creating informational materials for tourists: guides, memos, etc.

Nevertheless, the quality of the functioning of modern language models does not allow for completely delegating the functions of producing tour programs and creating guides to them. The information presented by neural networks needs to be verified, as inaccuracies and even gross errors, unfortunately, occur frequently at the current stage of development of large language models. For this reason, the operator of a large language model on the side of the tour operator company must not only be able to formulate requests correctly but also be capable of controlling the accuracy of its responses, checking the reliability and timeliness of the information. If errors are made by the language model, the responsibility for them before the consumer lies entirely with the tour operator.

Results and discussion.

To assess the capabilities of language models in creating tour programs, we used models that are publicly available, offer free usage, are accessible in Russian, and are up-to-date. In our case, the following versions of large language models were used:

- ChatGPT 4o
- Gemini Pro

- Copilot (based on Windows 11)
- Yandex GPT 3

To evaluate the quality of these language models, we submitted a series of identical requests. The neural networks were tasked with creating group and exclusive tour programs for domestic and international destinations.

Request: Develop a 7-night group beach tour program in Antalya and nearby destinations (not further than 50 kilometers from the accommodation). Group size: up to 15 people. The group includes solo travelers, couples, and families with children. The hotel where the group stays operates on an All-Inclusive basis. The program should include beach and poolside relaxation at the hotel, excursions, and active entertainment. Estimate the approximate cost per person.

ChatGPT:

To develop a 7-night group beach tour program in Antalya and nearby destinations for a group of up to 15 people, including solo travelers, couples, and families with children, I propose the following structure:

Tour Program:

Day 1: Arrival and Check-in. Transfer from Antalya airport to the hotel. Check-in at the hotel (All Inclusive). Evening familiarization with the hotel, dinner.

Day 2: Relaxation at the Hotel. Breakfast at the hotel. Relaxation on the beach and by the pool. Lunch and dinner at the hotel. Evening entertainment programs at the hotel.

Day 3: Excursion to the Old Town of Antalya. Breakfast at the hotel. Excursion to the old town (Kaleici): visiting Hadrian's Gate, Hidirlik Tower, Isiklar Mosque, and other attractions. Lunch at a local restaurant. Return to the hotel, dinner. Evening program at the hotel.

Day 4: Active Entertainment. Breakfast at the hotel. Active entertainment: rafting on the Koprucay River or a quad bike trip. Lunch as part of the excursion. Return to the hotel, rest, dinner.

Day 5: Free Day. Breakfast at the hotel. Free time for relaxation on the beach or by the pool. Lunch and dinner at the hotel. Evening activities at the hotel.

Day 6: Excursion to the Ancient City of Perge and Kursunlu Waterfalls. Breakfast at the hotel. Excursion to Perge: exploring ancient ruins. Visiting Kursunlu Waterfalls. Lunch as part of the excursion. Return to the hotel, dinner.

Day 7: Tour Conclusion. Breakfast at the hotel. Free time for relaxation on the beach or by the pool. Lunch and dinner at the hotel. Evening activities and farewell dinner.

Day 8: Departure. Breakfast at the hotel. Transfer to Antalya airport.

Approximate Cost Calculation per Person. Flight: \$300-500 (depending on the country of departure). Hotel accommodation (All Inclusive): \$50-100 per night * 7 nights = \$350-700. Excursions and active entertainment: \$150-250. Transfer (airport-hotel-airport): \$20-30. Total:

Minimum cost: \$820

Maximum cost: \$1480

Final Cost per Person:

Approximately \$1000-1200.

This estimate is approximate and may vary depending on the season, hotel level, and additional expenses.

Gemini:

7-Night Group Beach Tour Program in Antalya and Nearby Destinations

General Information. Duration: 7 nights. Group Size: up to 15 people. Accommodation

Type: All-Inclusive Hotel. Region: Antalya and nearby destinations (up to 50 km). Group Composition: solo travelers, couples, and families with children.

Sample Itinerary:

Day 1: Arrival in Antalya, transfer to the hotel, check-in. Relax on the beach, get acquainted with the hotel and its surroundings. Dinner at the hotel

Day 2: Breakfast at the hotel. Relax on the beach or by the pool. Lunch at the hotel. Excursion to Antalya Old Town: stroll through narrow streets, visit historical landmarks (Kaleici, Hadrian's Gate, Clock Tower). Dinner at the hotel

Day 3: Breakfast at the hotel. Rafting on the Koprucay River: mountain river rafting, swimming in waterfalls, lunch at a trout farm. Dinner at the hotel.

Day 4: Breakfast at the hotel. Relax on the beach or by the pool. Lunch at the hotel. Jeep safari in the Taurus Mountains: breathtaking views, swimming in a mountain river, dinner in a village. Overnight at the hotel

Day 5: Breakfast at the hotel. Relax on the beach or by the pool. Lunch at the hotel. Visit to the water park: water slides, attractions, pools. Dinner at the hotel

Day 6: Breakfast at the hotel. Free time: shopping, visiting souvenir shops, walks along the promenade. Lunch at the hotel. Farewell dinner at the hotel

Day 7: Breakfast at the hotel. Transfer to the airport, departure home

Cost:

Approximate tour cost per person: 30,000 rubles - accommodation in All-Inclusive hotel. 10,000 rubles - excursions and active entertainment. 5,000 rubles - flight. Total: 45,000 rubles

The tour includes: Accommodation in All-Inclusive hotel (7 nights). Airport - hotel - airport transfer. Excursions (Antalya Old Town, rafting on the Koprucay River, jeep safari in the Taurus Mountains). Visit to the water park.

The tour does not include: Flight. Personal expenses.

Additional Information: Depending on your preferences, the tour program can be adjusted. All-Inclusive hotels usually provide three meals a day and an unlimited number of drinks (water, juices, tea, coffee, locally produced alcoholic beverages). Excursions and active entertainment can be paid for separately. When booking a tour, it is recommended to arrange travel insurance. This program is only a sample and can be modified according to your wishes. I hope this information proves useful!

Copilot:

Here is the program for a 7-night group beach tour in Antalya for a group of up to 15 people:

Day 1: Arrival and Check-in. Morning: Arrival in Antalya, transfer to the hotel. Day: Check-in at the hotel, familiarize yourself with the surroundings, relax on the beach. Evening: Welcome dinner and hotel show program.

Day 2: Beach and Pool Relaxation. Morning: Breakfast at the hotel. Day: Free time on the beach and by the pool. Evening: Dinner and evening entertainment.

Day 3: Excursion to the Historical Center of Antalya. Morning: Breakfast and departure for the excursion. Day: Visit Kaleici, Antalya Museum, and Duden Waterfalls. Evening: Dinner at the hotel.

Day 4: Hiking in Goynuk Canyon. Morning: Breakfast and departure to the canyon. Day: Hiking, picnic, and swimming in natural pools. Evening: Dinner at the hotel.

Day 5: Jeep Safari. Morning: Breakfast and start of the safari. Day: Journey through the mountains, lunch in a village. Evening: Dinner at the hotel.

Day 6: Yacht Cruise. Morning: Breakfast and departure to the port. Day: Cruise with stops for swimming and sunbathing. Evening: Dinner at the hotel.

Day 7: Free Day. Morning: Breakfast at the hotel. Day: Free time for shopping or additional excursions. Evening: Farewell dinner.

Day 8: Departure. Morning: Breakfast and check-out from the hotel. Day: Transfer to the airport.

Approximate Cost per Person: Accommodation in All-Inclusive Hotel: from \$88 to \$150 per night. Excursions and Activities: around \$200 for the entire program. Transfers and Additional Expenses: around \$100.

Total: $\$88 * 7$ (nights) + \$200 (excursions and activities) + \$100 (transfers and additional expenses) = from \$716 to \$778 per person for 7 nights.

Prices may vary depending on the season and the selected hotel. It is recommended to confirm current prices and availability of excursions in advance.

YandexGPT:

Group Beach Tour to Antalya

Tour Program:

Day 1: Arrival at the hotel, check-in. Dinner. Group introduction.

Days 2–6: Breakfast, lunch, and dinner at the hotel. Relax on the beach and by the pool. Excursions and active entertainment.

Day 7: Breakfast. Check-out from the hotel. Departure.

Excursions and Entertainment: City tour with visits to major attractions. Visit to the water park. Yacht cruise. Trip to Duden Waterfalls. Quad biking. Walk through the old town of Kaleici. Excursion to the ancient city of Aspendos. Evening program (live music, shows, disco).

Approximate Cost of the Tour per Person: The cost of the tour depends on various factors, such as: Hotel accommodation costs, including All-Inclusive meals. Cost of excursions and entertainment. Transportation costs. Expenses for airport transfers. Insurance.

Additional expenses for souvenirs, drinks, etc.

To calculate the cost of the tour, it is necessary to know the specific conditions of accommodation, meals, excursions, and other services. It is also important to consider seasonality and possible discounts or special offers.

The approximate cost of such a tour can range from 50,000 to 80,000 rubles per person for double occupancy. However, this is only an estimate, and the final cost may vary depending on specific conditions and offers from tour operators.

It is important to note that for an accurate cost calculation, you should contact a tour operator or agent specializing in tours to Turkey. They can provide more precise information on the tour cost, considering all necessary factors.

Additionally, it should be noted that the cost of the tour may change depending on currency exchange rates, changes in service prices, and other factors. Therefore, it is recommended to check the cost before booking the tour.

Thus, among the tested models, only YandexGPT failed to fulfill the request, «lazily» limiting itself to recommendations for activities. As for the other models, they generally responded satisfactorily to the request and provided almost identical answers, differing only in details.

In the programs proposed by the language models ChatGPT, Gemini, and Copilot, the nuances mentioned in the request were taken into account: accommodation with the «All-Inclusive» system, a combination of relaxation by the water and pool, excursions, and active recreation. Each

of the models suggested a jeep safari as the latter. However, the proposed programs failed to consider the presence of children in the group. None of the models proposed separate children's programs and animations. But with a revised request emphasizing the needs of children, the tested models would add mention of children's animation to the programs.

Now let's evaluate how these language models can handle forming a tour program for a domestic destination in Kazakhstan. For the test, we proposed the following request:

«Develop an individual tour program for 5 nights in Almaty and nearby destinations (no further than 150 kilometers from the accommodation). It should be aimed at a family couple from another city in Kazakhstan, aged 25-40. Their interests: history, culture, and nature hikes. Calculate the approximate cost of the tour per person».

ChatGPT:

For developing an individual tour program for 5 nights in Almaty and nearby destinations, aimed at a family couple aged 25-40 with interests in history, culture, and nature hikes, I propose the following structure:

Tour Program:

Day 1: Arrival and City Introduction. Arrival at Almaty Airport and transfer to the hotel. Check-in at the hotel. Walk around the city center: visit the Park of 28 Panfilov Guardsmen, the Green Bazaar, and the Almaty Circus. Dinner at a local restaurant.

Day 2: Historical and Cultural Sightseeing. Breakfast at the hotel. Visit the A. Kasteyev State Museum of Arts. Walk around Republic Square and visit the Independence Monument. Lunch at a local café. Visit the Abay Kazakh State Academic Opera and Ballet Theater. Evening walk in Gorky Park. Dinner at a restaurant.

Day 3: Mountain Hike and Big Almaty Lake. Breakfast at the hotel. Excursion to Big Almaty Lake. Hike around the lake area. Picnic in nature (lunch included in the excursion cost). Return to Almaty, rest at the hotel. Dinner at a restaurant.

Day 4: Visit to Charyn Canyon. Breakfast at the hotel. Excursion to Charyn Canyon (about 200 km, within the allowable radius). Hike through the canyon, exploring natural attractions. Picnic in nature (lunch included in the excursion cost). Return to Almaty, rest at the hotel. Dinner at a restaurant.

Day 5: Free Day and Shopping. Breakfast at the hotel. Free time for visiting local markets, buying souvenirs, and walking around the city. Lunch at a café. Visit Kok-Tobe, a mountain with panoramic views of the city. Dinner at a restaurant on Kok-Tobe.

Day 6: Departure. Breakfast at the hotel. Transfer to Almaty Airport.

Approximate Cost Calculation per Person: Airfare: \$100-150 (depending on the city in Kazakhstan) Hotel accommodation (3-4 stars): \$50-80 per night * 5 nights = \$250-400. Meals: \$20-30 per day * 5 days = \$100-150. Excursions and activities: Almaty city tour: \$20-30; Big Almaty Lake excursion: \$50-70; Charyn Canyon excursion: \$70-100; Transfers (airport-hotel-airport): \$10-20.

Total:

Minimum cost: \$500

Maximum cost: \$920

Estimated Cost per Person:

Approximately \$600-750.

This calculation is approximate and may vary depending on the season, hotel level, and additional expenses.

Gemini:

Individual Tour Program for 5 Nights in Almaty and Nearby Destinations

General Information: Duration: 5 nights. Group: 2 people. Accommodation Type: Hotel. Region: Almaty and nearby destinations (within 150 km). Age: 25-40 years. Interests: History, culture, nature hikes

Sample Itinerary:

Day 1: Arrival in Almaty, transfer to the hotel, check-in. Lunch at a Kazakh cuisine café. Walk around the city center: Republic Square, Ascension Cathedral, Green Bazaar. Dinner at a restaurant with a mountain view

Day 2: Breakfast at the hotel. Trip to Big Almaty Lake: cable car ride, walk along the lakeshore, picnic. Lunch at a café by the lake. Return to Almaty. Dinner at the hotel

Day 3: Breakfast at the hotel. Visit to the National Museum of the History of Kazakhstan: exploring the history and culture of the country. Lunch at a café. Visit to Shymbulak: ski resort, cable car ride, panoramic views. Dinner at the hotel.

Day 4: Breakfast at the hotel. Hike in Medeo Gorge: scenic landscapes, waterfalls, mountain river. Picnic lunch. Return to Almaty. Free time: shopping, visiting souvenir shops, walking around the city. Dinner at a restaurant

Day 5: Breakfast at the hotel. Transfer to the airport, departure home.

Approximate Cost per Person: 25,000 RUB - Hotel accommodation (5 nights); 10,000 RUB - Excursions and transfers; 5,000 RUB - Meals; Total: 40,000 RUB.

The tour price includes: Hotel accommodation (5 nights); Airport-hotel-airport transfer; Excursions (Big Almaty Lake, Shymbulak, Medeo Gorge).

The tour price does not include: Meals; Personal expenses.

Additional Information: The tour program can be adjusted based on your preferences. Almaty has many interesting museums, theaters, restaurants, and cafés. There are many hiking trails and walking routes in the vicinity of the city. It is recommended to arrange travel insurance when booking the tour. This program is only a sample and can be adjusted according to your wishes. Hope this information is helpful!

Copilot:

Here is a sample program for an individual 5-night tour in Almaty and its surroundings, designed for a couple interested in history, culture, and nature hikes:

Day 1: Arrival and City Tour. Arrival in Almaty: Transfer from the airport to the hotel. Hotel Check-in: 4-star hotel in the city center. City Tour of Almaty: Visit Ascension Cathedral, Republic Square, and Park of 28 Panfilov Guardsmen. Dinner at a National Restaurant: Introduction to Kazakh cuisine.

Day 2: Historical and Cultural Attractions. Visit the Central State Museum of Kazakhstan: Learn more about the rich history and culture of the country. Excursion to the Ahmet Baitursynov House Museum: Immerse yourself in the history and literature of Kazakhstan. Walk along Arbat Street: A street with art galleries and souvenir shops. Evening Concert or Theater Performance: Depending on the event schedule.

Day 3: Natural Beauty. Trip to Big Almaty Lake: A picturesque high-altitude lake, perfect for photos and picnics. Trekking in Almarasan Gorge: A light hike with beautiful views and a chance to relax in nature. Return to Hotel: Rest and free time.

Day 4: Excursion to Charyn Canyon. Trip to Charyn Canyon: Amazing natural formations and opportunities for hiking. Picnic in Nature: Lunch outdoors. Return to Almaty: Evening

relaxation at the hotel.

Day 5: Cultural Activities and Leisure. Attend Cultural Events: Depending on the schedule, you can visit festivals, exhibitions, or concerts. Walk around Kok-Tobe: Cable car ride, panoramic views of the city, and entertainment at the summit. Farewell Dinner: At a restaurant with a view of the city.

Day 6: Departure. Free Time: Opportunity for shopping or walking. Transfer to the Airport: Departure home.

Approximate cost per person: Accommodation: 50,000 KZT (5 nights in a 4-star hotel); Meals: 30,000 KZT (breakfasts and dinners); Excursions and Activities: 60,000 KZT; Transport: 20,000 KZT (transfers and trips); Total: 160,000 KZT

This program can be adapted to your specific wishes and budget. I hope you enjoy your trip! If you have any additional questions or requests, please let me know.

YandexGPT:

5-Night Individual Tour Program in Almaty and Surrounding Destinations

Day 1: Exploring the City. Hotel Check-in. City Tour of Almaty: Visit Republic Square, Park of 28 Panfilov Guardsmen, Ascension Cathedral, Central State Museum of Kazakhstan, and other city landmarks. Dinner at a Local Restaurant with National Cuisine. Cost: Approximately 30,000 KZT per person.

Day 2: Mountain Hiking. Breakfast at the Hotel. Trip to the Starting Point of the Hike. Hiking in the Zailiysky Alatau Mountains (near Almaty). Picnic in Nature. Return to the Hotel. Cost: Approximately 40,000 KZT per person (including transfer to the starting point and guide services).

Day 3: Visit to the Ethnographic Park "Gakku". Breakfast at the Hotel. Excursion to the Ethnographic Park "Gakku": Learn about Kazakh culture and daily life, participate in traditional craft workshops, and taste national dishes. Lunch in the Park. Free Time for Walking and Relaxation. Cost: Approximately 20,000 KZT per person.

Day 4: Excursion to Charyn Canyon. Breakfast at the Hotel. Transfer to Charyn Canyon. Walk through the Canyon and Explore its Natural Attractions. Lunch in Nature. Return to Almaty. Cost: Approximately 60,000 KZT per person (including transportation and entrance fees).

Day 5: Departure. Breakfast at the Hotel and Check-out. Visit Souvenir Shops and Markets. Departure from Almaty

Total Tour Cost: Approximately 150,000–170,000 KZT per person. This is an estimated cost that may vary depending on the chosen hotels, transportation, excursions, and additional services.

Please note that this is just a sample tour plan that can be adapted to specific preferences and budgets. It's also important to consider potential changes in schedules and service costs due to current conditions and circumstances. It is recommended to confirm the information before booking the tour.

As you can see, the response to the request for the tour program in Almaty turned out to be more detailed and comprehensive than the response for the beach tour program in Antalya (Turkey). This is primarily due to the cultural and educational focus of the domestic tour, which includes a more intensive program and greater tourist activity. Moreover, when working with domestic destinations, the YandexGPT language model, which is tailored to the Russian-speaking user segment, performed significantly better than with external destinations. Additionally, when calculating prices, the Yandex model provides estimates in tenge, as does Copilot, whereas ChatGPT calculates the cost in US dollars, and Gemini in rubles (since the request was made in

Russian).

Each generated program considers the customers' wishes, offers activities (taking into account the actual possibilities in Almaty), and includes visits to tourist sites both in Almaty and its surroundings, without long tiring transfers. The authors of the article had concerns about the accuracy and relevance of the information related to Kazakhstan, as ChatGPT-3 previously demonstrated very weak knowledge of the history and culture of our country, and when unable to provide the required information, it would «hallucinate», giving out fictional and incorrect data as correct responses. In this case, as we see, the language models have become significantly better at handling requests for information about the domestic market.

Conclusions.

Thus, we can conclude that using the presented large language models as an additional tool in developing a tourism product can provide tour operators with more opportunities to optimize this activity. However, this is only if the model is used by a knowledgeable operator who is well-informed about the tourist destination being worked on and can correctly adjust requests and interpret the results obtained [5].

To achieve the best results, it is recommended to use not just one but several large language models, carefully analyze and combine the results they generate. Neural networks are progressing very quickly, and over time their work, including in the field of tour operation, will become increasingly qualitative. Therefore, ignoring this tool in the formation of tourist programs today is as counterproductive as ignoring GDS or personal computers.

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ТУРИСТИК БАҒДАРЛАМАЛАРДЫ ӘЗІРЛЕУ ҮШІН ТІЛДІК МОДЕЛЬДЕРДІ ҚОЛДАНУ МҮМКІНДІКТЕРІН ТАЛДАУ

Аңдатпа. Бұл мақалада туристік бағдарламаларды әзірлеу үшін GPT-4, Google Gemini, YandexGPT және басқа да заманауи тілдік модельдерді пайдалану мүмкіндіктері қарастырылады. Процестерді автоматтандыру және неғұрлым дербестендірілген турларды ұсыну қабілетін қоса алғанда, туристік индустрия контекстінде осы технологиялардың негізгі артықшылықтары мен шектеулері талданады. Мақалада тілдік модельдер клиенттерге қызмет көрсету сапасын жақсартуға, идеяларды тез генерациялауға және туристердің жеке артықшылықтарын ескере отырып, бағдарламаларды әзірлеуге қалай көмектесетіні қарастырылады. Оларды туристік компаниялардың жұмысына ықпалдастыру перспективаларына және туроператорлардың қызметін оңтайландыруға ықпал етуге ерекше назар аударылады. Сондай-ақ тілдік модельдер ұсынатын ақпараттың дұрыстығы және кәсіби мамандардың алынған нәтижелерді түсіндіруге қатысу қажеттілігі мәселелері талқыланады.

Кілт сөздер: туризм, туроператорлық, турөнім, ақпараттық технологиялар, нейрожелілер, үлкен тіл модельдері.

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АНАЛИЗ ВОЗМОЖНОСТЕЙ ИСПОЛЬЗОВАНИЯ ЯЗЫКОВЫХ МОДЕЛЕЙ ДЛЯ РАЗРАБОТКИ ПРОГРАММ ТУРОВ

Аннотация. В данной статье рассматриваются возможности использования современных языковых моделей, таких как GPT-4, Google Gemini, YandexGPT и другие для разработки туристических программ. Анализируются ключевые преимущества и ограничения этих технологий в контексте туристической индустрии, включая их способность автоматизировать процессы и предлагать более персонализированные туры. В статье рассматривается, как языковые модели могут способствовать улучшению качества обслуживания клиентов, помогая быстро генерировать идеи и разрабатывать программы с учётом индивидуальных предпочтений туристов. Особое внимание уделяется перспективам их интеграции в работу туристических компаний и влиянию на оптимизацию деятельности туроператоров. Также обсуждаются вопросы корректности информации, предоставляемой языковыми моделями, и необходимость участия профессионалов в интерпретации полученных результатов.

Ключевые слова: туризм, туроперейтинг, турпродукт, информационные технологии, нейросети, большие языковые модели.