THE IMPORTANCE OF VIRTUAL AND AUGMENTED REALITY TECHNOLOGIES IN THE DIGITAL DEVELOPMENT OF TOURISM SERVICES

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Abstract

This article is about the role of tourism services and technologies in today's reality. In recent years, the role of technologies such as virtual reality (VR) and augmented reality (AR) in the advancement of tourism services has significantly increased. These technologies provide innovative approaches to creating new experiences for tourists, increasing interest in new destinations, and planning capacity. Such technologies are being used in the tourism sector as an effective tool to provide high-level service to customers, promote the brand, and increase competitiveness in the market. With the help of these technologies, tourism companies also have the opportunity to further expand their services and attract an audience. However, there are some technical and economic difficulties associated with the large-scale implementation of these technologies, which have not yet been fully resolved.

Keywords

Tourism, technologies, Augmented Reality (AR), Virtual Reality (VR), virtual tourism.

Annotatsiya

Ushbu maqola turizm xizmatlari va texnolopgiyalarining hozirgi kundagi reallikdagi o'rni haqida. So'ngin yillarda turizm xizmatlari texnologiyalarini ilgari surishda virtual yani (VR) va kengaytirilgan (AR) shu kabi texnologiyalarning o'rni so'ngi yillarda sezilarli darajada ortdi. Ushbu texnologiyalar, turistlarga yangi tajribani yaratish yangi manzillarga bo'lgan qiziqishni oshirish va salohiyatni rejalashirishda innovatsion yondashuvlar taqdim etadi. Bunday texnologiyalar turizm sohasida mijozlarga yuqori darajadagi xizmatni taqdim etish, brendni ilgari surish va bozordagi raqobatbardoshlikni oshirish uchun samarali vosita sifatida qo'llanilmoqda. Bu texnologiyalar yordamida turizm kompaniyalari, shuningdek,

o'z xizmatlarini yanada kengaytirish va auditoriyani jalb qilish imkoniyatiga ega. Biroq, bu texnologiyalarning keng miqyosda joriy etilishi bilan bog'liq ba'zi texnik va iqtisodiy qiyinchiliklar mavjud bo'lib, ular hali to'liq hal qilinmagan.

Kalit so'zlar

Turizm, texnologiyalar, Augmented Reality (Kengaytirilgan Reallik) AR, Virtual Reality (Virtual Reallik) VR, virtual turizm.

Аннотация

В статье рассматривается роль туристических услуг и технологий в современной реальности. В последние годы роль таких технологий, как виртуальная реальность (VR) и дополненная реальность (AR), в развитии технологий туристических услуг значительно возросла. Эти технологии предлагают инновационные подходы к созданию новых впечатлений для туристов, повышению интереса к новым направлениям и планированию пропускной способности. Подобные технологии используются в туристической отрасли как эффективный инструмент обеспечения высокого уровня обслуживания клиентов, продвижения бренда и повышения конкурентоспособности на рынке. С помощью этих технологий туристические компании также получают возможность еще больше расширить свои услуги и привлечь аудиторию. Однако существуют некоторые технические и экономические проблемы, связанные с широким внедрением этих технологий, которые еще не полностью решены.

Ключевые слова

Туризм, технологии, дополненная реальность (AR), виртуальная реальность (VR), виртуальный туризм.

Introduction. Virtual and augmented reality (VR and AR) technologies are currently creating a significant revolution in the tourism industry. These technologies not only transform tourists' perceptions of travel by creating new opportunities, but also modernize tourism services and marketing strategies. Through these technologies, tourists can familiarize themselves with destinations in advance, thereby increasing their interest in visiting them.

The adoption of the new edition of the Constitution of the Republic of Uzbekistan through a nationwide referendum held on April 30, 2023, served to strengthen the constitutional foundations for building the New Uzbekistan. The presidential elections conducted in accordance with the new Constitution once again demonstrated the political maturity of society and the full public support for the reforms being implemented toward building the New Uzbekistan. 1

Tourism has been a steadily growing sector for the past ten years. Every tenth job is related to tourism, and it ranks third among the leading income-generating sectors. According to reports by the World Tourism Organization, global tourism suffered losses of approximately USD 1 trillion due to the pandemic. 2

Virtual tourism is considered a highly affordable form of tourism that allows tourists to travel to almost any location without leaving their place of residence. With innovations driven by technological advancement, the scale of virtual tourism continues to increase year by year. The main distinction of this type of tourism from other forms lies in its affordability and, in some cases, its free accessibility.

Modern digital technologies are fundamentally transforming the travel industry by creating new opportunities for travelers and making travel more convenient and flexible. Mobile applications have become an integral part of travel, offering a wide range of services—from finding and booking accommodation to planning routes and discovering local restaurants and attractions. Voice recognition and artificial intelligence technologies enable the creation of unique, personalized recommendations tailored to travelers' individual preferences.

Online accommodation and service-sharing platforms such as Airbnb and Booking.com are modernizing the traditional hotel industry by offering unique lodging options and autonomous travel opportunities.

Virtual reality and augmented reality are transforming the way travelers plan and experience the destinations they wish to visit. Virtual tours and interactive maps allow travelers to explore destinations in advance and make informed decisions about their trips. 3

The tourism legislation of the Republic of Uzbekistan consists of this Law and other legislative acts. If an international treaty of the Republic of Uzbekistan establishes rules different from those provided in the tourism legislation of the Republic of Uzbekistan, the provisions of the international treaty shall apply. 4

Virtual reality and augmented reality reshape the perception of how travelers plan and interpret the destinations they intend to visit. Virtual tours and interactive maps enable travelers to study destinations in advance and make informed decisions regarding their journeys. 555

Such innovative approaches create opportunities to introduce the historical monuments and cultural heritage of Shahrisabz to a wider audience, while simultaneously offering tourists a richer and more engaging experience. Through 3D modeling as well as virtual and augmented reality technologies, museum visitors gain the opportunity to elevate tourism to a new level. 666

In recent years, the tourism sector has been undergoing active transformation. Pandemic-related quarantine restrictions, followed by rising hotel and airfare

prices, have made travel an increasingly expensive form of leisure. Paradoxically, this trend coincides with the growth in the number of tourists worldwide and the phenomenon of "overtourism." According to forecasts by the World Travel and Tourism Council, a record number of tourists are expected to visit most countries worldwide in 2024. Tourism itself remains one of the fastest-growing sectors of the global economy.

Experts partially explain this rapid post-pandemic growth by people's desire to compensate for missed opportunities during periods of isolation. This phenomenon has even been termed "revenge tourism."

This trend encourages tourists to avoid popular destinations listed in travel itineraries, travel during off-peak seasons, and seek alternatives to well-known cities in order to gain unique experiences without crowds and long queues. At the same time, the fast pace of life, the abundance of information, gadgets, and social media stimulate interest in visiting places with limited connectivity. Travelers increasingly seek not only to stand in line for sightseeing tours, but also to engage with local communities, nature, and culture during their journeys. 777

Analysis. **Virtual reality (VR) and augmented reality (AR) technologies provide significant support to tourists in the travel planning process. For example, through VR, tourists can virtually preview destinations before actually traveling. This technology facilitates decision-making by allowing tourists to experience the real atmosphere of a location in advance. AR, in turn, provides real-time information and guidance to tourists, such as displaying points of interest at travel destinations and offering additional details about historical landmarks. These features enhance tourists' awareness and engagement during their journeys.**

Results. **The role of virtual and augmented reality (VR and AR) technologies in promoting tourism services is substantial, as their impact elevates various aspects of the tourism sector to a new level. Through these technologies, tourists can be offered innovative and interactive experiences that increase their interest in travel and introduce new ways of exploring tourism services.**

VR and AR technologies also assist tourists in planning their trips in advance. Virtual tours and interactive guides enable travelers to preview destinations beforehand, which in turn supports more informed travel decision-making.

Conclusion. In conclusion, virtual and augmented reality (VR and AR) technologies are driving large-scale transformations in the tourism industry. These technologies enable the creation of new, interactive, and immersive experiences for tourists, making all stages of travel—from planning to destination exploration—more convenient and information-rich. Through VR and AR, tourists can virtually explore destinations, interactively engage with historical monuments, and access real-time information during their travels. These opportunities provide not only educational value but also a strong experiential dimension. Additionally, such technologies assist tourism companies in developing innovative marketing tools, personalizing services, and supporting environmental sustainability.

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