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MOBILE APPS IN UZBEKISTAN MAKE A SIGNIFICANT CONTRIBUTION TO THE DEVELOPMENT OF TOURISM

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ANNOTATION

In subsequent years, as one of the strategic sectors contributing to the rapid development of regions, increasing income and living standards of the population, as well as increasing investment attractiveness, measures are being taken to develop tourism in Uzbekistan. Modern information technologies make a significant contribution to the development of pilgrim tourism. Advertising of travel online services in pilgrim tourism currently does not allow for the automation of travel agency work without creating an effective website. This article is devoted to the analysis of Internet technologies aimed at improving the tourism industry. The practical significance of the article lies in the use of modern information and communication technologies that support activities in the field of pilgrim tourism in the region. Ancient architectural and historical monuments of our country are of great interest to the world community. Especially in recent years, thanks to the ongoing work to develop tourism, the number of foreign tourists is growing. In addition, new areas such as ecotourism, gastronomic tourism, agritourism, sports tourism will be developed for tourists, traditional cultural and educational events, festivals and competitions will be held. Along with ancient monuments, shrines, monuments of history and culture, efforts in this direction in our country, which attracts tourists with its unique culture and traditions, picturesque nature and picturesque corners, play an important role in the further development of the tourism industry and infrastructure. This is evidenced by the fact that the World Travel and Tourism Council (WTTC) in the study "Economic performance of the travel and tourism industry" noted that our country is among the five fastest growing countries in the tourism industry.

Key words: QR, GPS, SMS, tourism, information technology, economics, WTTC, ecotourism, gastronomic tourism, agritourism, sports tourism, internet tourism.

INTRODUCTION

Indeed, tourism has a great impact not only on economic development and GDP growth, but also on employment, improving living standards and quality of life, prosperity and development of the country. Experts estimate that every 30 tourists will create one new job in the country's tourism industry and two in related systems. Every year, about two million tourists from 70 countries visit our country. For them, cultural and historical tourism remains the most popular. In addition, the fact that more than 110 of the more than 500 existing tourism companies are consistently operating on international routes is an important factor in attracting tourists to our country. In recent years, significant reforms have been carried out in our country to develop sports, extreme and leisure tourism. However, there are a number of other areas that require modern requirements and support. These include paragliding, hang gliding, aeronautics, small aviation, mountain

tourism, cycling, skating, mototourism, autotourism. Preservation of our centuries-old national and religious values, study of the invaluable heritage of our ancestors, who made a great contribution to the development of world science and culture, and upbringing young people as perfect human beings is one of the important conditions for ensuring a stable socio-spiritual environment. The Center for Islamic Civilization, the International Islamic Academy of Uzbekistan, Mir Arab Higher Madrasah, Imam Bukhari and Imam Termezi International Research Centers established in our country in recent years serve to study and promote our rich scientific and historical heritage.

LITERATURE REVIEW

The strategy we used to create the search strings was as follows [2] [42]: • Finding papers about Islam in digital technology. • Listing keywords mentioned in primary studies which we knew about. • Use synonyms word (usage) and sub subjects of digital technology in education such as (E-learning, management systems in education). • Use the Boolean OR to incorporate alternative spellings and synonyms. • Use the Boolean AND to link the major terms from population, intervention, and outcome. The complete search string initially used for the searching of the literature was as follows: digital technology AND education. It has been highlighted in [5] [25] that there are two main issues on conducting an SLR search which are the sensitivity and specificity of the search. In our preliminary search, when we used the complete search string defined above we retrieved a very high number of articles. For instance, Google scholar, Scopus, ProQuest education, IEEEXplore, Science Direct, Springer Link retrieved more than two hundred results. Therefore, we have deepened our search and used this search string: (Adoption OR Usage) AND (social network OR "Twitter, Instagram, Facebook, YouTube") AND (Education OR E-learning). The revised search string has given us a reasonable number of studies and we finally selected relevant empirical studies

METHOD

Methods such as scientific description, comparative, component analysis were used to cover the research topic.

ANALYSIS AND RESULTS

Issues related to the development of pilgrimage tourism in Uzbekistan As a strategic sector of the country's economy, favorable economic and organizational and legal conditions are being created for the rapid development of tourism.

Information systems and technologies are becoming more and more widely used in various spheres of human activity. The purpose of their creation, launch and widespread use is to solve problems related to the informatization of society and human whole life activities. Informatization of the society means the implementation of comprehensive measures aimed at the full and timely provision of enriched knowledge, reliable information in all socially important areas of human activity[1].

The first international pilgrimage tourism forum was organized by the State Committee for Tourism Development of the Republic of Uzbekistan, the Committee on Religious Affairs under the Cabinet of Ministers, the Muslim Board of Uzbekistan, the Public Charitable Foundation "Vaqf", the Ministry of Foreign Affairs, Bukhara region, Education, Science and Culture. was established with the support of the Islamic Organization (ISESCO) and the World Tourism Organization (UNWTO). The event was attended by more than 120 delegates from more than 30 countries. A Memorandum of Cooperation was signed between the National

PR Center under the Tourism Committee and the Global Muslim Traveler Index between MATTA (Malaysia), Crescent Rating (Singapore) and the Jakarta Promotion Foundation (Indonesia).

The introduction of modern information systems and technologies will increase the effectiveness of decisions. This will ensure not only the growth of national economic indicators, but also the achievement of quality scientific achievements in fundamental and applied sciences aimed at developing production, creating new jobs, improving the living standards of the population, environmental protection[3].

Accelerated development of pilgrimage tourism in our country, more complete and effective use of tourism potential through innovative, information and communication technologies, creation of new tourist routes in the regions due to the development of traditional cultural and historical tourism, their certification, computerization, creation of mobile applications, databases, tourism and national and regional programs for the integrated development of domestic, inbound and outbound tourism, aimed at the formation of a single national register of tourism facilities are being developed and coordinated[7].

Uzbekistan is working to further develop pilgrimage tourism, increase the attractiveness of our country in this area and increase the international rating using modern innovative computer technologies.

When talking about pilgrimage tourism, it is wrong to think only of tourists coming from Muslim countries. Thousands of people traveling from Israel to Southeast Asia use Uzbek airports as transit. There is also great interest in visiting many Buddhist monuments in Surkhandarya region from Japan, South Korea and China[4].

Sufficient opportunities and conditions have been created in Uzbekistan for the development of pilgrimage tourism. In Malaysia, for example, pilgrims now have to wait 35-42 years. In Indonesia, an average of 85,000 to 100,000 people a month perform Umrah through Turkey. Uzbekistan can directly serve as a transit point for them. There are many shrines in Bukhara, Termez, Moturidi and others, which are sacred to the people of these two countries. Therefore, pilgrims from Malaysia and Indonesia can spend a week in Uzbekistan on their way to Mecca. This in turn increases and develops financial revenue to the budget[9].

Effective measures are being taken to create modern, reliable and secure national sources of information, develop the market of information resources and services, the gradual and gradual transition to electronic forms of information exchange, connection to national and international information networks. This is evidenced by the regular holding of international conferences in our country, which serve the development of the industry, as well as the widespread attraction of foreign investment in the industry. Based on the above measures and measures, we can say that our main goal is to make progress in all areas of our country with the use of modern programs[10].

The country is consistently working on the development of modern information technologies and communications, the creation of an integrated system of e-government services, the introduction of new mechanisms of communication between government agencies and the population[12].

At the same time, a number of systemic problems and shortcomings in the field of management and implementation of information technologies and communications hinder the rapid development of this industry, the provision of quality information services[26].

First, the telecommunications infrastructure is underdeveloped, remote areas of the country are not provided with telecommunications networks, the quality of mobile communications and the Internet does not meet the needs of the population.

Second, due to the ineffective implementation of a single technological approach to the introduction of information technology and communications in public administration, departmental information systems and resources are introduced separately, which complicates the process of integrating them into a single information space[15].

Third, in e-commerce, insufficient attention is paid to the introduction of integrated sales and marketing platforms, online stores, payment systems, as well as logistics systems, which is one of the reasons for the suspension of economic and business development, foreign investment.

Fourth, the weak organization of information security and information protection in public information systems and resources increases the possibility of unauthorized access to information, violation of the integrity and confidentiality of databases.

Fifth, the heads of many government agencies and organizations do not pay enough attention to the implementation of projects aimed at improving the quality and efficiency of services provided to the population, eliminating bureaucratic procedures, reducing paperwork and the introduction of modern information technologies and communications[19].

Sixth, no effective measures are being taken to modernize the postal services and logistics system, to introduce qualitatively new methods of operation of the national postal operator and to increase its position in the market[46].

Seventh, the current system of training, retraining and advanced training in the field of information technology and communications does not take into account the rapid pace of development of IT technologies, as well as does not allow effective communication with leading foreign educational institutions to introduce advanced teaching methods.

Eighth, there is a lack of systematic work on in-depth study and implementation of the experience of countries that are more advanced in the development of e-government, e-commerce, e-government services, their transparency and openness, as well as telecommunications infrastructure[18].

Efforts are being made to attract tourists from Muslim countries, especially Malaysia and Indonesia, to the holy sites in Uzbekistan. In this regard, we can clearly see the work of the "Pilgrimage Tourism" department of the Committee on Religious Affairs under the Cabinet of Ministers of the Republic of Uzbekistan. Retraining of guides on pilgrimage tourism, publication of a new edition of reference books, creation of tourist applications running on the Android platform, preparation of banners, handouts, booklets, slides using modern communication technologies, development of multimedia disks, pilgrimage etiquette, airport and visa issuance Suggestions and comments on the facilitation of services and the development of relations with foreign partners, embassies are showing their strength[31].

On December 28, 2017, the decree of President Shavkat Mirziyoyev "On the establishment of additional non-working days and transfer of days off during the celebration of official dates in 2018" was adopted. According to the document, Uzbekistan has New Year, Navruz and Independence holidays, Ramadan and Eid al-Adha. In exchange for additional days off on the occasion of the holiday, our compatriots will have the opportunity to spend time with family and friends, to visit the shrines to celebrate the holiday.

Tourism, whether international or local, is unimaginable without modern information technology. Modern tourists can not relax without modern information technology. Through the program "Khiva Audio Guide"

created by Uzbek programmers, you can listen to the sights of Khiva in audio format, use the QR-code. QR code (Quick Response Code). Created in 2017, the app has a GPS system[33].

The tourism business is a mobile business. Its representatives need to be in constant contact with customers, remotely coordinate any situation, be able to respond to any questions and comments as quickly as possible, and be ready for last minute and travel. Not an important enough tool in the modern tourism business of Uzbekistan, information technology abroad is an integral part of a number of major tourism and socio-cultural projects. Information systems play a special role in the development of long-term planning projects for the development of tourism in the region[43].

Mobile technology plays a very important role in sales. Today, travelers can pay for air travel, get barcode information for check-in and check-out from their mobile phone. Information flows are a service that provides communication between manufacturers of tourism services. They act not only in the form of information flows, but also in the form of services and payments[50].

In the field of planning and management in the field of tourism, it is possible to solve the existing problems of providing information to the tourism business at the regional level using tourism (TIS) and geographic information systems (GIS). Geoinformatsionnaya sistema (geograficheskaya informatsionnaya sistema, GIS) - a system that stores and processes a graphic map. The creation of tourism and geographic information systems and the analysis of international experience in practice show that these systems can be considered as a statistical collection - an integral tool for planning, research and marketing in the tourism business in the region[42].

Today, there is a general trend to look for simpler and faster solutions that can be used in the software development process. However, two other trends can be observed - the rapid increase in the popularity of mobile applications and the introduction of IT concepts to non-IT professionals. That's why App Inventor 2 is one of the tools of public interest in software development. App Inventor is a tool for creating personal applications and comparing the capabilities of the JAVA program. A natural environment for the Android platform. The comparison is based on a personal text note management program created in both solutions. The application had a similar layout and analog code, and this was the subject of performance tests with survey results. Performance testing has shown that both applications are good enough for everyday use and for small-scale personal applications. They preferred the app because of its appearance. Finally, the current form of App Inventor is useless for professionals and is useful for non-IT professionals when creating personal applications[8].

App Inventor for Android is an open source web application originally provided by Google and now provided by the Massachusetts Institute of Technology (MIT).

Nekruz Patullaev, a student of the International Islamic Academy of Uzbekistan, has created a geolocation system on the Android platform for pilgrimage tourism for Uzbek, Russian and English-speaking users. Prepared by a 4th year student of the Department of Modern Information and Communication Technologies of the Faculty of Islamic Economics and International Relations, the application allows users to view photos of religious, historical and cultural shrines of Bukhara region, get detailed information about holy sites in Bukhara, use online maps of shrines. The Internet part of this system is located at http://naqshband.iiau.uz/, where you can fully enjoy the wonderful information about "7-pir"[23].

The application is developed to ensure the implementation of the Decree of the President of the Republic of Uzbekistan dated February 3, 2018 No PF-5326 "On additional organizational measures to create favorable conditions for the development of tourism potential of the Republic of Uzbekistan." The Academy's

programmers use the Internet to inform foreign tourists about the monuments and places of Uzbekistan recognized as a World Heritage Site by UNESCO, to promote museums with unique exhibits reflecting the culture, art and literature of Uzbekistan, the historical and cultural heritage of the Uzbek people. intended to go[17].

Tourism today is a source of information for business, which involves the world's largest airlines, hotel chains and tour operators. Personal computers and the Internet, their availability and reliability, help to penetrate into all spheres of society, including tourism, new information technologies.

Many years ago, online orders were a small test flow, and now they have become a strong flow that accounts for a quarter of all revenue. An example is CheckMyTrip. As a practical result of this work, the portal created by the Department of Pilgrimage Tourism of the Committee for Religious Affairs and the Department of Modern Information and Communication Technologies of the International Islamic Academy of Uzbekistan is planned to be launched in the coming months[28].

Through this portal, local and foreign tourists will be able to get acquainted with the ancient and modern cities of Uzbekistan, tourist destinations. The portal is planned to be available in Russian, English, Malay, German, French, Spanish, Chinese and Korean. Currently, in order to further enrich the portal, various materials on tourism are collected from different regions of Uzbekistan. It should be noted that the portal provides an opportunity to read interesting materials, as well as get information about attractions, entertainment venues, museums and historical monuments[48].

Today, more than 730 tourism service providers in Uzbekistan have their own websites, but not all of them have real economic success. If we talk about travel portals, the most popular direction of the online travel business today is the advertising of travel services, which gives the customer as much information as possible to make a decision. In the future, the ways to interact with the customer can be further multiplied.

Today, competitiveness in the tourism segment is directly related to site creation. The company's website performs a number of important functions. It is one of the main advertising channels of a travel company, the most effective mechanism for promoting a tourism product or service. The company's websites provide basic information that is easy to read. Creating reviews and blogs on sites is based on consumers 'memories and desires[17].

Many travel companies offer expansion of holiday opportunities on their websites, for example, Greece is not only a resort and beach country, but also a country that offers skiing and therapeutic vacations. The integration of textual information with the media constitutes a specific representation of the tourist space and consumer-specific tourism services. The company's website is a means of information and communication with the target audience for the company[27].

Uzbekistan is a convenient destination for pilgrimage tourism. Many famous scholars in the Islamic world have lived and worked in our country. At the same time, there are many historical monuments in our country that are dear to believers of other religions.

Al-Hakim at-Termizi shrine is one of the most famous historical monuments of Uzbekistan in Termez, Surkhandarya region. The number of visitors to this shrine is increasing day by day. Nowadays, there is a need for an electronic manual created using information technology to provide information about the shrine to visitors to the shrine, and its solution is very convenient for visitors to get information about the shrine. We are talking about this visit, which proves the relevance of developing an electronic guide for mobile devices[29].

Development of an electronic guide for mobile devices that provides information about the Al-Hakim at-Termizi shrine.

The following tasks have been identified for the development of the electronic manual:

creating a user-friendly interface;

the information in the menus should be clear, concise and understandable;

the user has valuable and necessary information for himself;

provide the user with as complete information about the shrine as possible;

consists of creating an electronic manual.

Scientific novelty of the subject. The Java programming language is the development of a software tool that works with an electronic manual for personal mobile devices running on Android operating systems, using the Android studio library and various filters. This library is also designed for the Java programming language and Android studio. The Java programming language was developed in this language because it has many components in creating a graphical user interface[8].

Significance of research results. The practical results of the study are as follows:

National resources running on Android, ie applications running in Uzbek language, were studied and analyzed;

Statistical data on the role of software created on the Android system in our society today were studied.

The scientific significance of the research results is explained by the further development of electronic manual development methods using efficient languages for mobile devices running Android operating systems.

The 5 basics of creating an android app for beginners is of interest to new users who are interested in apps. Because apps not only make phones "smart" but also increase their advantages. In this way, we can make the work we do today much easier and more convenient. Experienced programmers are engaged in creating their own applications, improving its design and networking in a unique, convenient way, according to user requirements. If you are also interested in programming, we present the following 5 basic start-up principles that you need to know before downloading android apps[24].

Thorough study of programming language. Java and XML are the two main programming languages used in creating Android applications. Therefore, the knowledge and skills required for these two programming languages is the first task in creating an Android app. The basics of the Java programming language are:

packages; objects and classes; inheritance and interfaces; systems, numbers, and generality; collections; similarities.

A thorough understanding of Java and XML will serve as a basis for you to create a modern and perfect Android application.

Learn about programming tools and environments. Importantly, you will need to install (automate) programming tools on your device and develop the skills to use them before creating your app. You can use software tools (editor) like Android studio and Eclips to use Android apps. These editors will help you gain basic knowledge and apply it in practice by coding it. You can also learn how to use software devices (translator, git) such as Apache Maven, Apache Ant and Grandle, which provide the necessary set of keywords (resources) to help you manage your devices[16].

Currently, the world pays great attention to tourism. This industry, with its diversity, has been making a positive contribution to the economies of many countries. One of the well-developed and evolving directions of

tourism is pilgrimage tourism. Today, our country has more than 7,000 rare historical monuments and glorious and unique architectural samples. Uzbekistan is a unique country, on the territory of which the most ancient civilizations and cultures have emerged, developed, has a huge tourism potential, which in terms of its attractiveness is not inferior to the best places for recreation and travel in the world. The country's beautiful nature reserves and national parks are masterpieces of its rich and colorful nature[18].

The centuries-old traditions of national culture, arts and crafts have been carefully preserved and developed in the country. Our world-famous national dishes and culinary traditions are a symbol of Oriental hospitality[35].

Uzbekistan is a convenient destination for pilgrimage tourism. Many famous scholars in the Islamic world have lived and worked in our country. At the same time, there are many historical monuments in our country that are dear to believers of other religions[29].

We have developed an electronic guide for mobile devices that provides information about the shrine "Al-Hakim at Termizi". This electronic guide also works offline. In online mode, the app only accesses the visit map on a Google map. This program offers many advantages and conveniences.

Java and Android studio programming language and injector were used in the development of this program. This program consists of the following sections: Basic information; Museum; Shrine; Translated works; Research; Manuscripts; Books; Hakim at-Termizi; Basic Uzbek-English-Russian; About the program[12].

Basic information. This section provides a brief account of Aloma's life and work. Museum. There are pictures and texts about the unique and rare manuscripts kept in the museum of the shrine, as well as information about the works and artifacts. Shrine. This section provides photos of natural landscapes about the shrine. Translated works. Al-Hakim at Termizi's works translated by Uzbek Islamic scholars are included. Research. The research section contains articles written as a result of scientific research conducted by Uzbek Islamic scholars[2].

Manuscripts; The works written by the scholar include works published in Uzbek by Uzbek Islamic scholars. Books. This section contains the books of Al-Hakim at-Termizi. Hakim at-Termizi. In this section, using the Google map service, the user will have an online map of the address of the shrine. Basic Uzbek-English-Russian. For visitors from foreign countries, there are phrases in Uzbek, English and Russian that will be needed at the shrine.

About the program. Information is provided about the authors who developed this program and the program.

- Android 4.4, 5.0, 6.0, 7.0 and higher;

56.36 MB of memory;

This program does not require special training or specific knowledge for users to use it. However, below are examples from the app for users. The program has 6 sections. The first section is called "Museum" and contains pictures and texts that provide information about the unique and rare manuscripts and artifacts kept in the museum of the shrine. You can get all the information by selecting this section. The "Research" section contains articles written as a result of scientific research conducted by Uzbek Islamic scholars. In the section "Manuscripts" there are works written by Alloma, published in Uzbek by Uzbek Islamic scholars.

"Hakim at-Termizi" In this section, using the google map service, the user will have an online map of the address of the shrine. The next section contains the necessary phrases in Uzbek, English and Russian for visitors from foreign countries. In this section, the user can learn how to connect with the founders of the created application. Information about the author is given here[35s].

The functionality of the program for the preparation of the electronic version of the "Android shrine of Al-Hakim at-Termizi" in the Android system was considered. Because it is very important that the functionality of each program comes first. We have also tried to make the functionality of this program convenient and simple for the users. In today's world of high-speed information technology, computers and laptops are being replaced by mobile phones. The use of mobile phones is increasing day by day. This program does not require special training or specific knowledge for users to use it. However, below are examples from the app for users.

CONCLUSIONS

In conclusion, due to lack of experience, travel companies do not take into account the requirements of some consumers. Information on many sites alone accounts for 32% of the total number of visitors. It can be concluded that many users have not been able to find enough information for tour and tourism companies and that the companies themselves are losing potential customers. To this end, it is advisable to increase the number of mobile applications that promote pilgrimage tourism for Android and iOS systems.

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