Prospects for the use of Geoportals and platforms in the digitalization of tourism

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ABSTRACT

This article provides information on the possibilities and prospects for the use of geoportals and platforms in the digitalization of the tourism industry.

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1. INTRODUCTION

The use of geographic information systems in the digital economy is also important for Uzbekistan, since its territorial, natural and industrial potential form the basis of national wealth. Thus, the purposeful and cost-effective implementation of this system remains a requirement of the times. Because one of the priorities is to provide employment in the regions of Uzbekistan. Therefore, the use of geographic information systems in accordance with the requirements of the digital economy is a source of high efficiency in the development of the region and resources.

In the diversification of tourism services, the world community of the 21st century has entered a new stage in its development, and today information plays a crucial role in the life of society. This process has not bypassed the tourism industry. Today it is impossible to formulate, sell and bring to the market a tourist product without adequate information support.

The development of new tourist routes in the country, the construction of historical and archaeological parks, the development of tourism and tourist services in rural areas, the consistent work on the construction of roads and service complexes require the effective use of digital technologies that will create favorable conditions for our compatriots to move around the country.

ANALYSIS OF THE RELEVANT LITERATURE

Theoretical and methodological aspects of digitalization of tourism and the introduction of information and communication technologies in tourism were studied by many foreign scientists: A.Yu.Aleksandrova, I.T.Balabanov, M.A.Zhukova, M.B.Birzhakov and others. Studies on these problems were carried out by Uzbek scientists Abdurakhmonov Kh.Kh., Pardaev M.K., Tukhliev I.S., Navruzzoda B.N., Khamidov O.Kh., Safarov B.Sh..

RESEARCH METHODOLOGY

The research methodology is a comparative analysis of the use of geoportals and platforms in the digitalization of tourism.

ANALYSIS AND RESULTS

Today, a modern tourism organization that uses information, digital and innovative technologies in its activities is successful and profitable, laying the foundation for the future. The introduction of digital
technologies will form the main trends in the development of the tourism industry. This is increasingly affecting almost every component of the tourism product by reducing transaction costs and increasing awareness of digital services and platform participants. Comparative analysis of the processes of traditional and digital tourism based on the study of scientific sources (Table 1).

Table 1. Comparative analysis of traditional and digital tourism processes

<table>
<thead>
<tr>
<th>Process description</th>
<th>By traditional processes</th>
<th>About digital processes</th>
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<tbody>
<tr>
<td>Planning opportunities and effective management in tourism</td>
<td>Insufficient attention of travel agencies and managing organizations to the planning of tourism development opportunities. Tourists are limited to the tour package of the travel agency.</td>
<td>The possibility of long-term planning and forecasting of tourism, as well as the development of a strategic plan for recovery of tourism after the pandemic. Tourists have the opportunity to make their own decisions on the Internet when planning their own trip, choosing prices and hotels, as well as creating tour packages and excursions.</td>
</tr>
<tr>
<td>Use of ICT in tourism, hotels and other types of accommodation</td>
<td>The computers of our office-oriented travel agencies mainly use the Windows 10 operating system, while the hospitality business mainly uses Booking.com and Uzbekistan pass.</td>
<td>The ability to transfer all government services related to tourism into electronic form and manage pages and sites on social networks by the hotel through a global booking system, including the creation of tourism portal sites.</td>
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<tr>
<th>Application of</th>
<th>In our country,</th>
<th>The possibility</th>
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<tbody>
<tr>
<td>geoinformation systems in tourism</td>
<td>direct geoinformation technologies are used only for the production of tourist maps, booklets and other electronic, printed products, including maps and diagrams.</td>
<td>of developing a system for determining the specialization of tourism in the region, an interactive electronic map of tourist sites, developing interactive mobile applications for tourists and tourist routes.</td>
</tr>
<tr>
<td>Start developing new modern types of tourism and creating new directions</td>
<td>Insufficient methodological and informational work aimed at the formation of new tourist products and the development of tourist routes in new directions.</td>
<td>The ability to determine the specialization of tourist destinations for certain types of tourism and, on this basis, to form attractive and tourist products that best meet the needs of tourists, the possibility of providing methodological and information services to organizations engaged in electronic travel (e-travel).</td>
</tr>
<tr>
<td>Improving the efficiency of the use of tourism resources</td>
<td>The lack of a description, register and specialization of tourism resources in the regions hinders the increase in efficiency.</td>
<td>The possibility of creating a unified database of natural and historical and cultural monuments of the regions, enterprises of related industries and tourism, as well as the development of cadastres of tourism objects.</td>
</tr>
</tbody>
</table>

1 Developed by the author.
Sale of tourism products

The offer by tour operators of the same tour packages for many years creates a number of problems in their sale. Availability of studying demand and concluding tourism contracts through social networks, online purchase of tour packages and promotion of tourism products to markets through GAT.

Full satisfaction of the needs of the most demanding tourists

Products developed by modern tour operators do not fully satisfy the needs of discerning tourists. The tourist himself chooses the direction of travel and visits this or that area. The ability to independently shape your own journey through social networks.

Implementation of innovations in tourism

The introduction of new innovative ideas and developments in tourism and hotel management in the existing system is impossible. Digitization of tourism will help improve the quality of services through the introduction of innovative technologies, automation and optimization of technological processes.

As can be seen from the table, there is a big difference between the processes of traditional and digital tourism, the changing scale and role of processes in society and tourism, as well as the presence of sharp differences, the need to develop a theoretical and practical basis for organizing and managing digitalization. Increasing the profitability of digital technologies in tourism, the gradual transition of traditional market participants to the online industry will create the necessary conditions for replacing the corresponding financial flows.

The essence of the platform is to provide the opportunity for direct communication and facilitate the interaction between participants. A comparison of the characteristics of digital platform types based on the descriptive characteristics of digital platforms is given in Table 2, which allows a more systematic approach to their classification and its use in determining the type of proposed platform.

Table 2. Comparison of features of types of digital platforms²

<table>
<thead>
<tr>
<th>Platform processes</th>
<th>Instrumental Digital Claims Platform</th>
<th>Infrastructure Platform for Digital Claims</th>
<th>Digital Application Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core business based platform</td>
<td>Development of software and technical solutions</td>
<td>Provide IT services and information for decision making</td>
<td>Exchange of certain economic values in certain markets</td>
</tr>
<tr>
<td>The result of the platform activity</td>
<td>A product (software or hardware) designed to process information as a tool</td>
<td>IT is a service, and the result of its work is the information necessary for making business decisions.</td>
<td>An agreement is a product/service between certain market participants, an exchange agreement</td>
</tr>
<tr>
<td>Member groups</td>
<td>Platform manufacturer, solution developers</td>
<td>Information providers, platform operator, platform developer, outbound IT services, consumer IT services</td>
<td>Economic participants: suppliers of goods/services and production resources; consumers. Platform operator and regulators</td>
</tr>
<tr>
<td>Level of information processing</td>
<td>Technological operations of information processing</td>
<td>Development of information for decision-making at the business</td>
<td>Processing of information on the conclusion and execution of an</td>
</tr>
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² Source: The classification was developed by the participants of the program under the guidance of B.M. Glazkov. "Digital Economy of the Russian Federation" 2018
Today, mixed architectural portals are being formed that store very large amounts of data. Such a portal may include GAT-based portals. In the development of tourism GATs, access to the portal level is a requirement of today. In general, many geographic information systems have been developed, but their capabilities will vary. In the process of geopartial formation, modern GATs can be divided into three main groups:

The first group includes very large workstations with powerful, well-designed, documented and multifunctional data entry tools that allow you to create any maps, and more powerful workstations or programs installed on very large personal computers and networked computer systems.

The second group includes GAT installed on personal home computers, which, although somewhat less powerful than the above systems, are intended primarily for solving scientific and practical management problems. These systems do not impose strict requirements for image quality, data processing volume, data protection and storage.

The third group includes GAT systems used for private domestic and reference purposes. Such GATs have a closed feature that prevents the user from making major changes to the data or system, or allows for minor changes. For example, it is not possible to edit entries in the database or add new entries. These GATs are much cheaper and require very little power from the PC.

As a result of the analysis of the use of geopartels and platforms in the digitalization of the tourism industry, it was proposed to fulfill the following conditions for the introduction of digital technologies:

- centralization of efforts to create a geoportal to create a tourism market and promote tourism products;
- development and implementation of electronic tourist cards and similar mobile applications for tourists (international maps for mobile devices that allow tourists to travel by public transport, learn about cultural events and activities, enjoy discounts when visiting a tourism exhibition, as well as

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<td>Examples</td>
<td>Java, SAP HANA, Android OS, iOS, Intel x86, Amazon Web Services, Microsoft Azure, Cloud Injection</td>
<td>General Electric Predix, ESRI ArcGIS</td>
<td>Uber, AirBnB, Aliexpress, Booking.com, Avito, Boyeing Supplier Portal, Apple AppStore, AviaSales, Facebook, Alibaba, Yandex Taxi, Appstore</td>
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Based on a comparison of the specifics of the types of digital platforms, it has been established that various blocks, services and mobile applications can be developed that perform functions aimed at developing the system for the formation of national tourism products in Uzbekistan.

In the process of digitalization of the world tourism market, as the use of geographic information systems increases, each sector develops websites or portals in accordance with its activities. In our study, we first had to analyze the various functions of the website and portal. Experts say: "Every portal can be called a site, but not every site can be called a portal." The focus of this description is that the portal will have site icons and will have its own domain and its own address. However, the information on the portal is so extensive that it includes dozens of services. The site may contain a group of information about a particular object or organization.

CONCLUSIONS AND OFFERS

Today, mixed architectural portals are being formed that store very large amounts of data. Such a portal may include GAT-based portals. In the development of tourism GATs, access to the portal level is a requirement of today. In general, many geographic information systems have been developed, but their capabilities will vary. In the process of geopartial formation, modern GATs can be divided into three main groups:

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other benefits; preparation of application analogues);

- provide access to online tourist routes using cultural, historical and natural attractions, museum expositions, visualization technologies, virtual tours, advanced digital technologies, etc.;

- creation and development of advanced digital services for moving around exhibition cities and facilities (museums, exhibition centers, art galleries, etc.) to increase the attractiveness of tourist sites and increase the efficiency of the use of tourist resources;

- Development of an open data system in the field of tourism, increasing the transparency of organizations and network management systems, creating conditions for the digitalization of new types of tourism services;

- introduction and development of big data and digitization technologies for data collection and analysis, as well as the development of a system for promoting tourism services;

- development of online services for building tourist routes with the possibility of buying tickets and booking hotels;

- creation of electronic platforms and platforms (manuals, teachers, guides) to involve the self-employed in tourism activities;

- GAT - development of multimedia applications for demonstration objects, audio and video coding services with integration with navigation, the ability to use QR codes to generate requests.

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