Three-dimensional visualization of tourist facilities as an element to provide information to tourist firms

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B. Sadibekova¹, A.Makhmudova¹, S.Abdukhamidov¹, A.Mukhamadiev¹

¹Participant of innovation project “Creation of 3D models of tour routers of Buddhism monuments in the regions of the Republic of Uzbekistan”, Uzbekistan

EMAIL: nabi8888@mail.ru

Abstract - If we look at the features of modern tourism, virtual reality models such as spherical panoramas, 3D, etc. play an important role in providing information to the tourism industry. Such technologies allow tourism companies to attract potential customers and go on a virtual journey.

Key Words: ICT, tourism, 3D, virtual reality, virtual tour.

1. INTRODUCTION

In today's age of information technology, as the world is changing rapidly, museums are being forced to look for new ways of development. One of the most promising solutions is 3D graphics. 3D is a rapidly evolving field that can be used to create libraries of any size in a short period and present museum exhibits in a new way. We can use 3D technology in the following cases:

- in a comprehensive approach to the digitization of museum collections;
- does not require physical contact with objects when visualizing models, which preserves their integrity;
- Ability to accurately reproduce interiors and equipment;
- ensuring the same depth of perception of objects as in real life;
- create the maximum impact of availability;
- Nothing threatens the security of the most expensive exhibit.

Created using 3D technology, the virtual museum opens up new opportunities for visitors from anywhere in the world. For example, schoolchildren in Samarkand will have the opportunity not only to study pictures in textbooks and illustrations but also to visit the State Museum of the History of Culture of Uzbekistan, Samarkand in a virtual environment.

3D technology is attracting new audiences to museums and exhibition halls that keep pace with the times and drive new digital technologies. This technology allows you to provide complete information about the history of the exhibits or their purpose, as well as reveal what is often hidden.

The world's leading museums are already focusing on new technologies, especially 3D visualization of their exhibits and the placement of scenes on the Internet.

First, let's understand why the 3D model is better than any photo panorama.

Freedom of movement around the institution. Unlike the photo panorama, the model, made in 3D format, can be seen from all sides, so through the museum, we travel as it is.

The quality of the final scene and its size. The 3D model allows you to save the maximum detail of objects while maintaining the appropriate size for the final scene.

Scenes created using a photo panorama are also able to give the user a detailed view of the object, but high-quality photos average 5 to 20 MB, which means that the entire scene size can be converted to tens of gigabytes.

Functionality - audio, video manuals, training materials included in the model. Unlike a simple photo panorama, the 3D model allows you to combine a wide range of functions. Such an exposition immediately turns from a show into an exercise. You can also add audio or video content.
In conclusion, the comparison of technologies shows that, unlike the 3D model photo panorama, it is a complete tool of educational and training sessions, which includes not only the visual appearance of the museum but also the interactive acquaintance of the user with the museum exhibits. i.e. walking around the halls yourself, getting maximum information about the exhibits, listening to the tours, and so on. Such created 3D models allow for a tour of the museum, especially for the physically challenged.

The ability to add interactive 3D models to a travel agency’s website helps attract visitors to the resource. 3D models have been used successfully to promote countries or cities as a means of developing tourism and creating a country image.

Tourism development is one of the main tasks in most countries of the world. Often, not all tourism opportunities in a country or city are fully disclosed and appreciated. Therefore, creating a clear three-dimensional copy of a historical monument or tourist route leads not only to a virtual “novelty” but also to a growing interest in the real place, and therefore becomes one of the most powerful things.

The extensive functionality of the models allows you to examine all the details of the object from a distance, walking as if it happened. The ability to add voice guides, news messages, and music content makes 3D models a complete piece of equipment for virtual tourism for excursions. The main advantage of the 3D model is that the virtual adventure does not replace the usual travel, but becomes a means of tourism development: seeing the image on the screen, a person wants to visit here.

In addition, interactive 3D models of attractions perform an important social function: virtual tourism allows people with disabilities to visit places they cannot visit due to their health.

2. CONCLUSION

All interactive models can be used not only for tasks such as tourism development but also for commercial purposes, creating additional opportunities for advertising and marketing. By creating copies of popular tourist destinations and attractions, it will be possible to attract additional investment by placing logos, other materials of advertisers in the 3D model space.

Thus, the use of modern technologies in the creation of virtual 3D models of tourist destinations allows to attract interested people and promote the services of travel companies.

REFERENCES


