

Travel content using virtual reality: Alternative direction of the travel industry in the COVID-19 age

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Abstract

Due to the safety protocol during the COVID-19 pandemic, VR began to receive attention as it became possible to provide users with a sense of realism without space restrictions by converging content into various genres. In addition, as it is possible to secure realistic content technology, it is possible to develop various user-experiential contents. However, in Korea, the VR industry is low in utilization except for the game field. This paper proposes a service that allows people who cannot travel due to COVID-19 to go to the places they want to go through VR travel without restrictions on time and place, and those who are not good at planning can choose the desired area and schedule their trip.

Keywords: Virtual reality, theme park, experiential content

1. Introduction

After the COVID-19 pandemic, it is difficult for tourists to move, and the damage to the tourism industry is very severe. For example, all trips by Chinese, Korea's main inbound market, have been canceled. 77% of foreign tourists who were planning to visit Korea canceled their trip, and 87% of Koreans who were planning to travel in Korea and 100% of those who were

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planning to travel abroad expressed their intention to cancel their trip in 2020.

VR began to receive attention as it became possible to provide users with a sense of realism without space restrictions by converging content into various genres. In addition, as it is possible to secure realistic content technology, it is possible to develop various user-experiential contents. However, in Korea, the VR industry is low in utilization except for the game field. The purpose of using virtual reality is to allow people to show and operate as if they are in an environment that is difficult to experience on a daily basis without experiencing it directly. In a virtual reality system, human participants and real virtual workspaces are interconnected by hardware. In addition, it allows participants to visually feel what happens in a virtual environment, and auxiliary hearing and touch are used.

Busy modern people have a tight time and spend time scheduling wasteful vacations. Due to the high cost of accommodation, the number of campers is increasing, and there are many people looking for good restaurants. As a result, there have been many travel apps that plan travel courses and recommend restaurants, but so far, there are no travel recommendation programs that meet users' constraints and need to be improved. Therefore, this paper proposes a service that allows people who cannot travel due to COVID-19 to go to the places they want to go through VR travel without restrictions on time and place, and those who are not good at planning can choose the desired area and schedule their trip.

2. The meaning change of travel during COVID-19

The etymology of the English word 'travel', which means travel, is 'travel'. It was not until the 19th century when transportation developed that travel became considered pleasure or entertainment, not pain or hardship. For example, in 1780, it took four to five days for a station wagon to travel from London to Manchester, England, but the train that appeared in 1880 reduced the time to five hours. And

If you pick the industry that has been hit the most as the COVID-19 situation continues, it must be the travel industry. Looking at the announcements of each country, the number of tourists in the first half of 2020 decreased by at least 74.7% compared to the same period last year. Travel is not just a consumer product, but a human nature that wants to rest and experience, so the idea that it will definitely return to its place, even if there will be a temporary decrease in demand. This is because it was the same when we went through economic crises, SARS, and MERS in the past. Although the development of vaccines and treatments for COVID-19 has been completed, the situation is prolonged, but from past experience, the market will surely recover. Therefore, I think it is the best we can do now to prepare for the post-COVID-19 era in all industries, including the travel industry.

After COVID-19, digital innovation technologies such as AI, big data, and AR/VR are expected to be introduced quickly in the tourism sector, raising the need for innovative growth of tourism companies.

The new tourism industry, so-called "smart tourism," is expected to develop further in a tourism environment that values hygiene and safety after COVID-19. Through big data and AI, customized tourism information (sanitary management, etc.) that tourists want can be provided, and contents that experience travel destinations can be provided using VR · AR technology. Smart tourism can be developed into a "smart tourism city" that provides tourism services and marketing optimized for local tourism demand in combination with urban infrastructure.

As the importance of non-face-to-face tourism services increases and the development of realistic tourism contents expands, more and more customers do not prefer face-to-face contact, and the hotel industry is introducing artificial intelligence-based mobile concierge unmanned kiosks.

Realistic tourism contents using VR, AR, and hologram technologies have been suggested as a new alternative to meet travel needs in the tourism environment after COVID-19.

VR travel has the advantage of being able to have an experience that cannot be experienced in real life. For example, VR tourism allows you to experience extreme areas that are usually difficult to go to, such as South America and the Arctic.

In addition, the travel itinerary recommendation system recommends the shortest route to visit as many tourist attractions as possible, based on the assumption that most of them have a high user preference for famous places and want to visit as many places as possible. In travel destinations, it is easy to leave unexpected leisure time due to lack of plans, closure of tourist attractions, and waste of movement. Therefore, the smart tourism service can recommend and guide the most interesting places for users according to their current location, preferred category, and nature of travel, helping them leave the most meaningful and good memories at any moment of travel.

3. Cases of smart tourism in Korea

A smart tourism city refers to a city that provides differentiated experiences for tourists and continuously develops tourism content and infrastructure through the convergence of two factors: tourism elements and technology.

For example, unlike in the past when you had to search for detailed data and find the location through a map, you can experience differentiated experiences through previously updated and registered data through smartphones and apps.

Korea's representative smart tourism cities include Incheon Open Port Street, Suwon Hwaseong-City, Gyeongju-City and Namwon-City, Yangyang-gun, Ulsan-City, Cheongju-City, and Hadong-gun, which were newly selected in 2022.

In Korea, smart tourism cities are being developed by the Korea Tourism Organization, a government-affiliated organization. The vision of the smart tourism city development project is to revitalize local tourism through the realization of a smart tourism ecosystem.

In addition, it aims to lead the digital revolution of tourism due to the 4th industrial revolution, accelerate the convergence of

tourism and technology through government support, and present a future tourism blueprint that aggregates smart tourism elements.

On July 1, 2022, Suwon City launched "Touch Suwon," a smart tourism app that combines tourism elements and ICT technology, which provides easy and easy access to tourism information in Suwon Hwaseong Special Zone and supports foreign language services.

Currently, Touch Suwon supports a total of four languages, Korean, English, Japanese, and Chinese, and provides various functions by classifying them into five categories: major places, reservation/purchase, events, realistic guides, and others.

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This corresponds to a smart experience among the five elements of smart tourism. It also provides a service that artificial intelligence recommends travel courses. If you answer a few questions asked by artificial intelligence, artificial intelligence offers recommended travel courses such as visiting time zone, age range, companion traveler information, and preferred travel type. This corresponds to smart convenience and smart platforms among the five elements.

It also provides tourist maps, allowing visitors to see tourist attractions, restaurants, cafes, experience attractions, parking lots, accommodations, and toilets at a glance. In addition, Suwon City also operates an XR bus, which experiences Joseon's 22nd royal journey to Eulmyowon in 1795, and if necessary, you can tour Suwon Hwaseong on a large bus equipped with a transparent

display (T-OLED) that displays images. This corresponds to smart mobility among the five elements of smart tourism.

In this way, this paper looked at how smart tourism cities where tourism and advanced technology meet can develop. Although this paper analyzed a single case called Suwon City in Korea, it seems that this case can be applied to other tourist cities in various countries. It is hoped that IT, which makes the world convenient, will be inspired by how it combines with other fields to provide various services in the COVID era.

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