Preface

Metaverse and tourism

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In recent years, a new digital environment called the "metaverse" has been rapidly evolving. This metaverse, which enables interaction and experiences in a virtual space, has the potential to bring about innovations, especially in the tourism industry, and is attracting much attention.

Metaverse is a virtual environment formed by making full use of Augmented Reality (AR), which overlays digital information on real space, Virtual Reality (VR), which creates unreal worlds and hard-to-experience situations in virtual space, and Mixed Reality (MR), which combines and fuses real and virtual space. In the metaverse, users can interact with other users and enjoy a variety of experiences. The main feature of the metaverse is that it allows users to connect with people around the world, transcending physical limitations. Users can create their own avatars and engage in communication and economic activities with other users. For example, they can gather to converse, enjoy events, sports, shopping, etc. These technologies are expected to be used in the tourism industry as well and can be used for PR to attract tourists from Japan and abroad, as well as for economic promotion by expanding content.

The tourism industry needs change to recover from the severe conditions caused by the COVID-19 pandemic, environmental problems, and economic instability. Tourism is an important pillar of the economies of many countries, but especially in Japan, where declining birthrates, aging populations, and depopulation have led to national and regional revitalization efforts through tourism in many areas. As a service that can provide new experiences for travelers, many local governments have recently promoted the use of AR, VR, and other metaverse services.

The benefits of applying the metaverse to tourism include the following. First, accessibility, which is especially beneficial to the elderly and disabled, as they can easily access tourist destinations around the world without geographical limitations. Second, transportation, lodging, and food costs associated with actual travel can be greatly reduced, especially since actual long-distance travel is expensive, while staying in a metaverse space is inexpensive. In addition, the metaverse provides an interactive experience in which participants can interact with other participants in real time, and a virtual tour guide can explain the history and culture of a tourist destination. Moreover, since physical travel is not required, CO_2 emissions are reduced and sustainable tourism is realized. Finally, the development of the metaverse has created new professions such as virtual space designers, event planners, and community managers, contributing to job creation. Thus, the benefits of applying the metaverse to tourism are numerous.

The importance of promoting tourism using the metaverse is expected to increase in the future. The following are examples of metaverse-based tourism.

- Virtual travel: One of the greatest advantages of the metaverse is the ability to enjoy travel without physical movement. Users can visit tourist destinations around the world by wearing a VR headset. For example, users can enter the pyramids in Egypt, walk around in Machu Picchu in Peru, or climb Mt. Fuji in Japan. This will create new sightseeing opportunities for people who are unable to travel, as well as for the elderly and disabled.

- Interactive experience: In the metaverse, users can not only recreate tourist attractions, but also have interactive experiences. Since communication with other users is possible in the metaverse space, information about the sightseeing spot can also be shared. For example, local government or tourism association officials can answer questions, and the appeal of the area can be conveyed to attract tourists. Users can also experience historical events and learn about local culture. For example, users can learn about the life and culture of the time while exploring a World Heritage site, creating an educational effect as well. Such experiences can greatly enhance the value of tourism.

- Dissemination of local attractions: Metaverse can also function as a means to widely disseminate local tourism resources. Reproducing events and festivals unique to a region in the metaverse can increase the interest of tourists. It is possible to understand the attractions of a region before visiting it and create an opportunity to actually visit it. Alternatively, by

using events held in reality and events in the metaverse at the same time, the range of staging and attractiveness of events can be expanded, leading to an increase in the effectiveness of attracting visitors and the satisfaction of participants. In addition, local specialties can be purchased in the metaverse, which will also bring about economic revitalization.

• Promotion of eco-tourism: As environmental problems become more serious, sustainable tourism is required. By using the metaverse, tourists can enjoy sightseeing while minimizing their impact on the environment. Experiencing the beauty of nature in a virtual space and learning about its importance will increase the number of people who visit the site with an awareness of environmental concerns. It is also expected to contribute to the promotion of eco-tourism.

• Solutions to over-tourism: Metaverse tourism may contribute to the solution of over-tourism. Over-tourism is a phenomenon in which too many tourists are concentrated in a particular tourist destination, adversely affecting infrastructure, the natural environment, and the lives of local residents. The metaverse provides a means to address this. For example, alternative experiences can be provided through virtual tours of tourist destinations to alleviate crowding in actual tourist destinations. In addition, tourists can learn about the history and culture of a tourist destination in advance within the metaverse, thereby deepening their understanding of the destination and increasing their awareness of conservation. Furthermore, the ability to shop for goods in the virtual space before or after a visit, rather than on-site, would provide a new source of income for the local economy while helping to disperse tourists in the area.

Although there is a possible concern that creating tourist attractions in a metaverse space will reduce the gap between reality and the metaverse as reproducibility increases and fewer tourists are satisfied with virtual tourism and visit the site, it is ideal if the metaverse and real tourism can interact to revitalize tourism.

The advantage of real tourism is the ability to deeply experience the attractions of a place through the five senses. By actually visiting a place, visitors can enjoy the sights, sounds, smells, and food with all five senses, and feel the attraction of a tourist destination more strongly. They can also deepen their understanding of different cultures by interacting with local people, learn about local food culture and traditions, and enjoy meeting other travelers. In addition, the real-life experiences create lasting memories, and photos and souvenirs from the trip bring those memories vividly to life. Real tourism, however, presents several challenges. First, real travel is expensive and time-consuming, especially long-distance travel, and not everyone can easily afford it. In addition, the use of transportation for travel increases CO_2 emissions, and excessive consumption at tourist destinations can increase the burden on the environment. Furthermore, there are safety risks such as communicable diseases and natural disasters, which can discourage travel.

Ideally, in future tourism, metaverse tourism and real tourism

should complement each other. For example, previewing tourist attractions in the metaverse will make it easier to plan the actual trip. Also, looking back on an experience in the metaverse after a trip will allow the user to enjoy memories more deeply. By combining metaverse and real sightseeing for each stage of the trip, such as "*Tabimae* (before a trip)," "*Tabinaka* (during a trip)," and "*Tabiato* (after a trip)," the possibility of increasing the intention of new tourists to visit the metaverse and attracting repeat visitors will increase. In "*Tabimae*," PR is conducted in the metaverse by announcing real events, playing games that can be completed by visiting actual facilities, and issuing coupons that can be used at actual stores. In "*Tabinaka*," AR contents improve the level of satisfaction while actually sightseeing. In "*Tabiato*," users can create an album in the metaverse to remember the sightseeing spots they have visited, and purchase local products they like in the metaverse, etc., utilizing the advantages of both the metaverse and the real world.

The challenges of using the metaverse for tourism include developing the technological infrastructure and bridging the digital divide. There is also a need to explore how experiences in virtual space can be linked to real travel, and in particular how virtual experiences can stimulate real tourism demand. However, the potential of the metaverse for the tourism industry is enormous, and the travel industry can create new business models through the metaverse. In the future, the development of wearable devices will allow for more realistic experiences as the real world and the metaverse merge. In addition, increased activity in the metaverse will lead to the emergence of new jobs related to digital marketing and the virtual economy, as well as increased demand for professionals who can analyze data and improve the user experience. Since these prospects will largely determine how well the metaverse will take root in the future, the active involvement of businesses and governments in the development of metaverse-related technologies, infrastructure, and legal frameworks, as well as international standardization, will be important factors in promoting its establishment.

About the author

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