ICT and Dark Tourism

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Abstract

Currently, 'dark tourism' is gaining popularity as a new tourism concept. Dark tourism is different from simple leisure, and its purpose is based on the succession of local grief or praying for dead people. ICT can be made more effective by optimising the potential of dark tourism. In this study, dark tourism will be analysed in terms of ICT.

Keywords: dark tourism; digital archives; AR; digital map

1 Introduction

'Dark tourism' is a relatively new notion, conceptualised in 1996 by Lennon & Foley to refer to the phenomenon of people travelling to areas struck by tragedies and disasters, including war. This concept is currently gaining popularity and is being welcomed globally, and not only in the UK and Europe where it was conceptualised.

Earlier, this concept was limited to places connected with WWII, such as Auschwitz; however, in the last decade, because of events such as 9/11, the Indian Ocean Tsunami, and the Great East Japan Earthquake, the geographical scope of this concept is expanding. Moreover, Asian and African elites would often study European countries that had governed those areas, and this gave rise to the early popularity of this new tourism concept.

Concerning Japan, Dr Funk Carlin introduced this concept in 2008, with a focus on education, thereby ensuring that it had a limited effect in other areas. Pursuant to the publishing of the 'Chernobyl Dark Tourism Guide', written by the famous philosopher Dr Hiroki Azuma, who was inspired by the Fukushima nuclear plant accident, the concept of dark tourism has become popular in Japan. Although 'dark' sounds negative in Japanese, the use of this term has been increasing recently.

I have collaborated with Dr Azuma, and I believe the basis of dark tourism is the witnessing of, or participation in, local grief, because tourism helps increase the awareness about a tragedy and to ensure that the next generation does not forget the lamentable events of the past. Generally, tourists visit many places and, therefore, they can regard each place from a relative point of view. For example, the grief regarding the Fukushima nuclear accident can be analysed from the perspective of history or civilization when tourists experience Chernobyl or the Three Mile Island. It should be emphasized that this study focuses on the succession of grief.

2 Relationship between Tourism and ICT

In the recent past, ICT use has been increasing in the area of tourism. Management using ICT is especially increasing because of advances in the study of management information. The hotel reservation system is expanding, and it can now be regarded as a type of infrastructure. The hotel reservation system and restaurant reservation system are connected to sites such as TripAdvisor.

As regards the technical aspect, a tourism navigation system, derived from GPS, has been developed and several other well-known tourism systems have been considered. Navigation systems and their software are especially becoming sophisticated along with the development of the smartphone. These evolutions can be seen in the history of IFFIT.

In Japan, the relationship between mobile ICT and tourism is not very well developed. There are two main reasons, among others, for this situation based on the survey by Japan Tourism Agency. First, most of the tourists are of two types—one type comprises elder people over 60 years and middle-aged people, and the other type comprises middle-aged and old women. This situation increases the digital divide. Second, concerning convenience, people view the smartphone screen as a group, and it is not practical for several people to view a small 5-inch screen together; further, recently, many smartphones have an 'anti-peeping' protective film.

In Japan, several tourism information systems are being developed, although there is scarce demand for them. This is the same situation that Japanese electronics companies had earlier experienced. Some academic researchers have developed tourism information systems only out of curiosity, and in the absence of any demand or requirement for those systems. Therefore, this software is unlikely to be used or further developed.

However, as regards dark tourism, tourists have accepted ICT more openly and, therefore, dark tourism has a strong connection with ICT. The details will be explained in the next section.

3 Characteristics of Dark Tourism

As dark tourism is related to tragedy, it is different from mass tourism. Dark tourism locations are expected to be analysed more deeply with reference to the grief associated with different events in human history. To understand tragedies connected to local situations, it is necessary for tourists to learn the local history, geography, and so on. Therefore, dark tourists have a high-level awareness of the liberal arts, along with sensitive feelings. Moreover, they are sophisticated, and generally have higher-level academic backgrounds and higher income levels. Therefore, people who enjoy dark tourism belong to the top layer of the digital divide.

To summarise, dark tourism is a new type of tourism involving people at the top end of the digital divide; these people are rich and highly educated, and enjoy travelling alone or with a small group for sharing the local grief or the succession of local tragedy. As regards the research and development of a tourism information system in Japan, although engineers and researchers have thus far designed systems without any

practical demand, dark tourism provides an opportunity for the dramatic advancement of tourism information systems.

4 ICT from the Viewpoint of Dark Tourism

Henceforth, tourism information system technologies that have already been developed will be re-conceptualised in terms of dark tourism. Although several systems were not developed for tourism, they will be helpful for the succession of grief, which is unique to the local society. From section 4.1, the relationship between such technologies and ICT will be explained.

4.1 Augmented Reality (AR)

Approximately three and a half years have elapsed since the Great East Japan Earthquake. Today, the issue of whether the remnants of an old building should be retained or not is becoming a contentious topic of discussion.

Not all people agree on whether the remnants of an old building affected by an earthquake or tsunami should be retained. Some people believe that the remnants should be retained for memory and as sites where prayers can be offered. In contrast, others claim that the remnants should be removed because they remind the survivors of their tragedy; this appears to be a reasonable argument, and it is difficult to convince such people that the remnants should be preserved. People who wish to preserve the remnants advance arguments such as the succession of tragedy or the sharing of grief, rather than attracting tourists.

Based on the core values of dark tourism, whose purpose is the succession of grief, it is desirable to preserve the remnants; however, it is impossible to ignore local opinions. Notwithstanding, it is essential to succeed to the local grief about the disaster. To succeed to it, AR is very useful. If the remnants are removed, visitors would not know of the tragedy that has befallen a disaster area when they visit it. In other words, even if dark tourists visit disaster locations, local grief cannot be recognized and succeeded. However, AR technology can display objects such as buildings even after the remnants are erased.

As examples, I would like to introduce smart phone apps named ‘Dark Tourism Sendai’(http://www.dmp.co.jp/dark-tourism-sendai/) and ‘Ishinomaki Tsunami AR’(http://ishinomaki-support.com/category/memory_cat/tsunami-ar/).

If AR technology is utilized, the succession of local grief is possible without damaging the feelings of disaster-affected people who would not like to see the remnants of the disaster.

4.2 3-D Data

Some projects, including one involving *Ozuchi* town, involve the collection of 3-D data about the remnants. This town is well known among Japanese people because the leading personalities of this town from the mayor onwards died in the tsunami. After the disaster, this town collected 3-D data both inside and outside, about the destroyed buildings in the town hall, collaborating with researchers. This data is available on the

website of Professors Ikeuchi and Ouchi at the University of Tokyo (http://www.cvl.iis.u-tokyo.ac.jp/otsuchi/).

Such 3-D data will be useful for many purposes such as the reconstruction of buildings or education. After removing the remnants, data cannot be recorded. Therefore, data about the remnants, including 3-D data, should be recorded before the remnants are removed, and this data should be available for viewing. Because memories of the disaster are not unique to the administrator, they should be succeeded by society.

4.3 e-Government

In practical terms, not many types of tourist maps can be created. Moreover, tourist maps usually consist of leisure contents, and it may be difficult to combine dark tourism content and leisure content on the same map. However, there is a demand for dark tourism, especially from the young, and information about dark tourism is thus required. In these circumstances, how can local governments provide information about dark tourism?

In this context, Ueno village will provide useful guidance. This village is in a rural and quite area which is located approximately 150 km from Tokyo. Japanese people know it as the site where a Boeing jet crashed in the summer of 1984. This is the biggest accident involving a single airplane. The upper area of the mountain where the airplane crashed, called 'Osutakano One', is now open, and a pedestrian route is available. Recently, climbers who have no connection with the bereaved families are increasing in number. This type of climbing has now become the main purpose for visiting Ueno; however, it is difficult to display accident points on a leisure map. For such information, which cannot be combined with other information, the Internet is very useful. In fact, on the top page, there is a link for information on climbing for prayers, and the content about climbing for prayers is located separate from the leisure and tourism content (http://www.vill.ueno.gunma.jp/index.html). This is an ideal case for demonstrating the usefulness of the Internet when information is difficult to obtain if visitors do not search aggressively. Persons who would like to climb for prayers provide information which is then collected on the Internet and displayed on the leisure map. This method helps to pray for dead people, succeed to local grief, and learn about the accident.

Administrators provide adequate information for the succession of local grief to the next generation. It is related to the management of local e-government. Usually, local government provide information to local residents; however, information related to tourism should be regarded in terms of its communication outside the community. People who would like to enjoy dark tourism would often be interested in the local area, and would like to share understanding and grief. It is necessary to study ways to provide adequate information for dark tourism.

4.4 Digital Archive

Digital archives have often been employed for recording and transmitting concrete or nonconcrete content on cultural areas. This system is very effective for dark tourism.

Information inside digital archives possesses certain tags. If a tourist searches on these tags, he or she can find new destinations and plan accordingly. Besides, structural and social relationships which may not have been recognized by researchers will be found by tourists. In addition, tourists share these insights, leading to new structures of memories developing in modern society.

4.5 Digital Map

As dark tourism is a type of tourism, geographical data is indispensable. There is a limit on the information that can be displayed on paper maps, and it is difficult to combine different types of information on the map referred to in section 4.3. However, the recent 'Revolution of GIS (Geography Information System)' is helping to overcome such difficulties.

Recent studies on GIS indicate that content about 'who said what, and when' are linked with location data and this content is archived on a digital map. Hiroshima archive, Nagasaki archive, Aceh Tsunami archive, etc. are significant examples of this type of research (http://labo.wtnv.jp/). These archives recorded the voices of the people who lived in those areas, and shows their memories' like a mark-up balloon.

This type of memory system is very useful for dark tourists. Storytellers are often well informed on dark tourism locations; however, because these experiences are very personal, it is difficult to understand such situations even with the use of this system. If users see the entire situation of the tragedy, every tourist would be able to understand each lamentable story or comment considering the overall context of that area, and would be able to understand the whole tragedy and succeed to local grief.

5 Conclusion

With the aid of well-known examples, this study shows that ICT offers key technologies for dark tourism. These technologies are not mutually exclusive and can be combined. Dark tourism is now gaining popularity in the mass media, but is not as well known among ordinary people. However, ICT certainly has uses in dark tourism, which is a new type of tourism. Therefore, when tourism informatics is studied, it is important for researchers and engineers to carefully consider the state of dark tourism.

References

Lennon, J. J., & Foley, M. (2000). *Dark Tourism*. London-New York: Continuum

Acknowledgements

This work was supported by JSPS KAKENHI Grant Numbers 24611014, 80341585.