Development of a Presentation System for Tourist Information which Helps the Tourists to Post and Share their Comments

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ABSTRACT

Recently, we face the increasing need to provide the information of tourism to tourists using ICT. In many tourist spots, the presentation system for tourist information using Internet and mobile device is introduced. Also, the most important information is the word of mouth information which is provided by other tourists. Therefore, it is important to support asynchronous communication among tourists using word of mouth information through tourist information. We developed a presentation system for tourist information which helps the tourists to post and share their comments. Using our system, tourists can get tourist information and helps to post and share their comments. This paper describes the presentation system for tourist information.

KEYWORDS

Tourist information, Word of mouth information, Information presentation, Image recognition, Photography;

1 INTRODUCTION

The Japanese government implements the policies and measures described below in Tourism Nation Promotion Basic Plan[1] which enacted in 2012. Tourism Nation Promotion Basic Plan describes the need to use information technology. According to the result of Consumption Trend Survey for Foreigners Visiting Japan[2] that was conducted by Japan Tourism Agency, “search site” (29.8%) and “personal blog” (21.1%) were used as useful information. The survey[3] of Japan Travel and Tourism Association reported the most important information is the word of mouth information which is provided by other tourists, and the percentage is increasing year after year. The results of these surveys means it is important to support asynchronous communication among tourists using word of mouth information through tourist information. There are some studies of tourist information presentation. Fukada[4] had developed a tourist information system using image processing-based on augmented reality. Ichikawa[5] had developed a universal design plush-type audio guidance using mobile device. These systems can present tourist information. However, these systems don’t support asynchronous communication among tourists using word of mouth. This paper describes presentation system for tourist information which helps the tourists to post and share their comments.
2 PRESENTATION SYSTEM FOR TOURIST INFORMATION

In this section, the authors describe the presentation system for tourist information. Fig1 shows an overview of the presentation system for tourist information. In this study, we have developed the system that information is presented by shooting flowers of Sanuki Mannou National Park. The tourism information presentation system consists of the contents creation application, the contents creation server, the tourism information presentation application and the image recognition server. The users of this system are contents information creators and tourists. This system provides support for creating contents information to the contents information creators. Also, this system presents the contents information and promotes post comments to the tourists. The contents creation application can send contents information to the contents creation server, acquire link of blog articles created by the contents creation server and call the tourism information presentation application. The contents creation server can create blog articles based on contents information and manage blog articles. The tourism information presentation application can send contents image to the image recognition server and searches contents image. If the contents image is not registered, the tourism information presentation application can associate contents image to contents link, and it will be registered. If the contents image is registered, the tourism information presentation application can present contents link. The image recognition server can register contents image and contents link.

2.1 contents creation application

The contents creation application has calling function, transmitting function and acquisition function. The transmitting function sends contents information to contents creation server. In this study, we have defined a flowers of Sanuki Mannou National Park as contents. Fig2 shows the contents information registration screen. It has registered the cosmos flowers as contents. The contents information consists of 「Name」, 「Basic information」, 「Best time to see」, 「Number of flowers」, 「Location」, 「Tag」, 「Thumbnail」. 「Name」 is name of the flowers. 「Basic information」 is features of the flowers. 「Best time to see」 is the best time to see of the flowers. 「Number of flowers」 is number of the flowers. 「Location」 is location of the flowers. 「Tag」 is selects from
「Spring flowers」、「Summer flowers」、「Autumn flowers」、「Winter flowers」。「Thumbnail」 is thumbnail of the flowers. The contents information creators input the contents information in the form, and click the 「Information Transmission」 button. After selecting thumbnail from the images saved in mobile device, the contents information creators click the 「Image Transmission」 button. The contents information and thumbnail are sent to contents creation server. The acquisition function acquires link of blog articles created by the contents creation server. The calling function calls the tourism information presentation application based on the contents link. The contents link has link of blog articles and link of SNS.

### 2.2 contents creation server

The contents creation server has creation function and management function. Also, the contents creation server uses a WordPress of blog software. The creation function creates blog articles in WordPress based on contents information. Fig3 shows the screen of blog articles made from sent flowers information on fig2. The management function manages blog articles.

### 2.3 tourism information presentation application

The tourism information presentation application has photograph function, search function, association function, transmitting function, and presentation function. The photograph function takes images using the camera of the mobile device. The search function sends contents image to the images recognition server and searches contents image with the identical characteristics. The association function associates contents image to contents link. Fig4 shows the screen that associates link of blog articles on fig3 and link of SNS to cosmos images.

The transmitting function sends contents image and link to images recognition server. The presentation function presents contents link.

![Figure 3: Blog article screen](image1)

![Figure 4: Association function screen](image2)
to the tourists. Fig5 shows the screen that presents contents to the tourists. In this system, the contents link is represented by URL schemes. URL schemes are the link to launch an application. In recent years, iOS and Android can launch other applications by accessing the URL schemes.

When you click the ①, browser application is started and presents blog articles on Fig3. When you click the ②, twitter application is started and can post comments with hashtag of #MannouPark. Fig6 shows the screen that posts comments using twitter application.

2.4 images recognition server

The images recognition server stores contents images and contents link. The images recognition server uses the Ricoh Visual Search (RVS) technology[6] that is image recognition technology. The RSV technology searches contents images with same characteristics to image recognition server using images characteristics. If there are the same contents images in the image recognition server, the server sends contents link to the tourism information presentation application.

3 CONCLUSION

This paper described the presentation system for tourist information. Using our system, tourists can get tourist information and help to post and share their comments. In the future, we are planning a demonstration using our system at the Sanuki Mannou National Park.

REFERENCES


