

# Strategies for the Building of the Culture and Tourism Website in Urban Tourism Information Service

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## ABSTRACT

*This research analyzes the need for technical elements based on related articles and empirical experience when culture tourism homepage is to be developed or renewed focused on the research of main elements in 6 web sites. Technological elements required for the development of culture tourism homepage are use, contents, structure, linkage, search, and appearance. Tourism information service provides many conveniences to tourists, and help to maximize profits and additional income for urban tourism.*

**Keywords:** Culture tourism information, Urban tour information service, Internet.

## 1. INTRODUCTION

According to a report announced by ITU (International Telecommunication Union), the usage rate of Internet in Korea is 55.2%, ranking third after Iceland (60.8%) and Sweden (57.3%) in the late 2002. Korea scored first in rate of digital subscriber network usage in late March of 2003. However, the tourism information service fails to follow the development of information technology. According to a survey about the acquirement path of tourism information on Seoul Urban conducted by Seoul urban, "travel agency" was 34.0% scoring the highest, then "relatives and friends" 23.0%, and "airport, hotel, and Urban tourist information office" 20.1%. However, acquirement of tourism information through Internet decreased from 26.6% in 2002 to 3.7% in 2003. This decrease in tourism information acquirement shows a lot of changes in the strategies of servicing the tourism information. Although many cities has already provided tourism information though Internet technology, the representation of the information have mainly relied on text and pictures, thus not making full usage of multimedia, and lacks information guidance system for all of the urban since much of information are focused on individual tourist places inside the Urban [11].

Gunn[18] pointed out that tourism information was one of the 5 constituent of Tourism System while Schertler[25] referred to Urban tourism as information business. In Urban information, 'information' is important both to the provider and consumer of Urban tourism. AS tourism information service is mainly due to the development of Internet, the application of Internet information technology is more suitable for Urban tourism than urban tourism due to the nature of potential access to the Internet [19].

Many research reports that culture tourism information have been released in the 90's following the rate of informational communication technology development. Most of these reports focused mainly on physical environment such as the connection speed of web site, required technology of implementation, and composition of image and contents. It is said that the travel industry is not making full usage of the research since too much energy is put on the analysis of the present state of culture tourism information.

This research explores culture tourism homepage of Urban tour information service focusing mainly on the research by Abels, White and Hann[14]-[16] following the recent trend of information technology and considering the problems of existing research relate to culture tourism information.

## 2. RELATED WORKS.

### 2.1 Urban Tourism Information Service

The common definition of Urban Tourism is tourism phenomena generated from the Urban by the interaction between Urban tourist and Urban tourist object, tourism business, related government, and citizen [3]. Recently, the meaning and importance of urban tour and tourism Urban has being highlighted around the world. The reason is that not only the Urban serves as a gateway of a country and a region, but the Urban itself is a excellent tourism site where many people visit. Thus the attention how to increase the incoming number of tourist into the Urban has been growing [4].

Since the importance of Urban tourism increases in this manner, Urban should be seen as a tourism object based on the complex function of the Urban itself and the historical aspect where the past and modern have been combined and more research is required to activate Urban tourism. The Urban is regarded as an important unit where tourism activities take

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place.

According to a survey about foreign tourists conducted by Korea National Tourism Organization in 2003, 68.8% of destinations where foreign tourists visit are cities and 60.5% of the cities are in metropolitan area.

The importance of tourism information in urban tourism comes from the demand of urban tourist in need of information and the change in the attitude of the providers. Urban tourists consume sophisticated and complex products which are provided by different providers (e.g., hotel, restaurant, movie theater, museum, shopping place, travel agencies, traffic offices)[10]. Moreover urban tourists actively pursue diverse tourism information, not simple and inactive acquirement of tourism information, to improve the quality of tourism experience.

Different providers of the urban need to cooperate and communicate to each other to meet the demands of urban tourists, and thus the formation and share of tourism information play a key role [19]. As both the consumers and the providers recognize the need of tourism information service, a technological environment is needed to full fill the need, the Internet information technology is formed. In a worldwide perspective, access to Internet is more general to urban area than urban area due to the high density of potential users and thus Internet service is more suitable from urban tour than urban tour [19].

Currently, after the commercialization of Internet, it is true that a recent amount of information is shared, but it is limited to satisfy the width and depth of information the tourists want [10]. According to a research, which is about urban tourist information service in 131 different places in all parts of the country, conducted by Kim, Y. M., Lee, H. S. and Gu, B. H [2] in case of travel information service, 60~70% homepage are actively providing information. However, to satisfy the more detailed need of tourism, map service, leisure information, and tourist course guide need to be more activated and regional specialty introduction service need to be strengthened, too. Adding more problems to this, tourism information needs to make a use of multimedia according to the latest technology.

Main technical elements of culture tourism homepage Let's take a look at the technical elements which needed to develop the culture and tourism homepage. Abels, White and Hann [14]-[16] described the technical elements by testing the main properties used in 6 web sites. These relational models are usage, content, structure, linkage, search, and appearance. Choe [12] described that efficient usage and exploring structure are required for easy access to information by a good composition of navigation. Content should be rich both in quantity and quality and should be reliable. Linkages between the site should be balanced. Search element is the search function for related content information. And the search results should be reliable. Appearance is each page design having well-structured text and graphic.

Choe [12] analyzed that relational importance of the 6 properties differs. Usage is the highest (20.02%), content (18.54%), structure (18.41%), search (16.62%), linkage (14.57%), and appearance is 11.84%. Usability of users is the most important element and appearance was relatively regarded less important in developing and renewal of tourism

information. From such point of view, let's look at the technological elements required for the development of culture tourism homepage.

## 2.2 Use

Scholars, Schneiderman, W. [26] and Neilsen, J. [21] emphasize the importance of efficient user interface from early on. Scholars, Schneiderman, W. [26] is the exemplary research about interface focused on efficient exploration of the web. Homepage navigation should be well-structured base on usage rate and exploration structure. Tourism information should be easy to access, thus the main page should have 2~3 main elements from the main page. Recent trend shows a quick navigation sub menu next on the right side. In the aspect of usability, the user should be satisfied through information exchange and one-stop service. Moreover, log analysis of the system is required to understand the needs of the user. Feedback from such means can help to satisfy the users continuously.

Kim [3] investigated that local travel agency do not make use of web logs. However, log analysis grouped by date, weekday and time can help to determine the busiest access time and rate of errors from the web site. It is also possible to classify non-member and member user and analyze the most visited page and the most stayed page.

It is not enough to bring out the participation of user just by transmitting typical tourism information. Communication space (community) should be provided and foreigners should be able to participate. Analyze the cultural difference and the purpose of visiting based on the characteristics of the foreign tourists. Online survey and participation event activity and cyber news writer system based on nationality can be used as a method for such analysis.

## 2.3 Content

Content should not only be rich in quantity and quality, but should also be reliable. On the reliability side, objective, accuracy, and copyright are to be considered by stating the source of the content. A worker in charge of managing should be granted to the content and present the email address and contact of the webmaster at the bottom of the web page, thus increasing the interest of management. In implementing the content, the culture tourism homepage should be organized by each language region.

Oh & Choe [9] pointed out that foreign language was the first homepage improvement after examining the structure of Internet tourism information with the regional government. Also, Baek & Kim [6] pointed out that foreign language support should be strengthened from their report on tourism information found in the homepage of the Province of Chung Cheong Nam-Do.

Tourism Information sites of Singapore, Hong Kong, and Thailand usually provides 8 different languages. However, domestic sites provide at least 4 different languages such as English, Japanese, Chinese (SHIFT), and Chinese (Simple). It is important to separately conduct a survey for each language region users to provide efficient service depending on the characteristics of the language. In the case of content composition, someone with a good knowledge of the language

culture should prepare the content and a native speaker should examine the contents and thus improve the quality of the contents for each language region. One of the difficulties in developing a tourism information site is acquiring the contents.

There are several ways to acquire content. Depending on the characteristics of the contents, the composition of database of the tourism information differs. As methods of acquiring the contents, program technology that convert text, Korean documents, HTML, image, and other different database to tourism information database is used. Such acquiring of contents is temporary and used for prototype site in the early stage. Also to acquire dynamic contents, a technology which combines contents on real time is necessary. Such technology automatically updates contents periodically when updating of contents occurs in specific tourism site.

This is a crucial technological element for the implementation of tourism information site, thus enabling CMS (Content Management Server). CMS is an expensive system and has never been used in tourism industry. However it is necessary for the tourism industry to implement tourism information site based on CMS within 1~2 years.

With the recent development in multimedia technology, contents are combined with multimedia to provide VR (Virtual Reality), movies(Geographical information System), and web virtual reality. GIS VR is a digital virtual space implemented using 2D and 3D technology and a technology which enables the user to actually feel by showing photos and pictures as the user moves around. Such function makes full use of magnification, reduction, rotation, and distance by using images. Movies are used in a way to provide diverse method to enhance the comprehension and interest of the user more than just providing text or photos.

Movie is a technology which makes motion picture of objects like TV screens and provides them on the web site. Materials of tourism information movies are event, festival, tourist site, and themes. Web page containing such movies should provide linkage to simple text information, photo image, web virtual reality, VR, and GIS, so that it provided easy access and integrated contents service. Web virtual reality implements digital virtual space using 2D and 3D technology and provide it on the web and offers the user experience of visiting the real site. In the case of famous tourist site, web virtual reality can be used to provide cyber travel. Through virtual experience, the user is more interested in the tourist site and will like feel to impulse to actually visit the place. GIS is used to collect, save, print, and analyze data related to geographical features such as building, road, river, contour line, and boundary of administration region.

For urban tourism information service, web-based map information service provides easy identification of geographical position of tourist site. According to Lee, [10] through web GIS the scope of information can be widened by providing combined map showing each tourist site and the connecting route of the whole urban and the depth of information can be deepened by connecting EOO character, photo, movies, and related homepage inside the map. McClaver [23] foresees the changes in web GIS as follows.

First, location identification using mobile Internet device will be common. Second, based on standard, movies, photo, and

document will be available besides simple map. Third, 3D map service will increase to provide spatial understanding. At last, user will be able to use web GIS using simple web browser as the number of site increases and as offline information increases simultaneously. According to the research result by Lee [10], first basic map implementation must proceed for using web GIS in urban tourism information service.

Second, urban tourism service using web GIS should acquire information from other information system through integration.

Third, the number of demand which specifies the different kind of information people want to get from web map service should be identified.

Fourth, to implement and maintain the urban tourism information service using web GIS, a plan for system development and maintenance should be established in advance. However GIS focused on tourist site is expensive to develop and should be developed around government and public institution. In other specific tourist site, map providing tourism information which is more effective than GIS can be implemented. In order to do this, whole map of the tourist site and 30 ~ 60 regional maps and detailed map by each region should be produced.

The user will have access to detailed geographical information when selecting a region map from the whole map. Also by offering search function for tourist site, user can find the searched destination more easily and have access to map information around the destined tourist site. With the recent development in mobile technology, tourism information can be provided through mobile phone and PDA.

Tourist can receive tourist map of the urban and urban tourism information service through wireless Internet from anywhere.

## 2.4 Structure

Oh, & Choe [9] divided the menu for tourism homepage into tourist site introduction, lodging facility, traffic guide, food introduction, tourist course, regional festival, regional specialty, and sport leisure. According to analysis of Seoul Culture Tourism Information homepage by Oh, [8], out of 159 chapters, tourism information introducing tourism resource was 140 chapters (88.1%), the rests 11 chapters (6.9%), and traffic information 8 chapters.

Composition of homepage should be about organization of contents and provide easy usage of information. For efficient composition of diverse contents, the main menu and sub menu of the site are important. Basic menus are tourist site, tourist site travel, history, culture space, tourist site information, and community. Sub menus are multimedia-related, which are VR, movies, web VR, and GIS. To provide travel information to tourists, lodging, traffic, restaurant, shopping, and leisure sports should be provided systematically.

## 2.5 Linkage

According to Oh [8] the linkage in culture tourism homepage should be improved but currently the linkage is limited. Since it is hard for foreigners to access local homepage, these homepage should be registered to major search engines such as Yahoo, Lycos, Altavista, and Info seek. Essential links can be divided into links to inside page and links to outside page.

Tourism information site should be registered to search engine for exposure to outside. Links and contents should be managed periodically to avoid dead links. Also to provide the tourist easy access target page, fixed-term links should be provided and inside link structure should link to contents, image, VR, movies, web VR, and tourist map to provided convenience for the user.

## 2.6 Search

Beime and Curry [17] researched 25 students who have experience with the Internet about how they search information about Hawaii and Nepal and 88% percent of them used search engine. Search is about content related information and the search result should be reliable. By indexing tourism related words, the search speed can be improved. The scope of contents search is database search, HTML page search, and foreign language search. A separate foreign language search should be introduced separately for foreign language.

## 2.7 Appearance

Larson & Czerwinski [22] pointed out that the potential problem is unfriendly web design and mentioned the importance of balancing the depth and width of menu design and analyze the search performance of different homepage which have different depth and width. Appearance should consist of tourism information, text and graphic for each page. Consistent appearance should be implemented by the whole design, logo and UI(user interface). Considering today's Internet environment, the resolution should be 1024x768 and provide more than 256 colors. All images should be in gif format for clear image and photo images should use jpeg format.

Excessive use of image can slow down the speed of the site so images should be used based on necessity. Appearance should consider efficient flow of the user's eye, menu and other elements should be place from left to right, top to bottom based on importance. The main page design should be simple and clear to offer convenience and trust to the user.

Sub pages should follow the main page design and the user must be able to know his position inside the site and provide links to upper level. Especially in the case of regional language site from foreign tourist, foreigner's favorite color and composition should be considered. Currently many travel agencies use Internet to promote themselves promptly and effectively. The design element should be used to effectively provide information and bring the interest of the user [11].

## 3. CONCLUSION

Tourism information service provides lots of convenience to tourists. Moreover the tourist sites, the subject of urban tourism, can maximize a profit and gain additional income. This research aims to analyze the need for technical elements based on related articles and empirical experience when culture tourism homepage is to be developed or renewed focused on the research of main elements in 6 web sites by Abels et al.[14]-[16]

The results of this research are as follows. First, Internet-

based information technology greatly affects urban tourism information service. It is not easy to clearly define urban tourism information service since it can be various according to the researcher's view and his research field. Secondly, Information Communication technology has been growing fast according to the Moore's Law. To achieve superiority to urban tourism information service of foreign countries, attention should be paid to provide detailed analysis and environment for better development of culture tourism homepage. Lastly, technical aspects and attention should be paid on how the main technical environment is implemented in tourism information services in other competent cities

## REFERENCES

- [1] IMD. The IMD world Competitiveness. Yearbook 2003. <http://www02.imd.ch/wcy>, 2003.
- [2] Y. M. Kim, H. S. Lee, B. H. Gu, "A Study on the Internet Tourism Information Structure of Provincial Governments Home Pages.", *The business management society of Korea*, Vol. 16, 2002, pp. 21-37.
- [3] J. G. Kim, "A Study of Web Log File Analysis for Internet Marketing of Travel Agency.", *The tourism & leisure society of Korea*. Vol. 13, No 2, 2002, pp. 147-160.
- [4] H. J. Kim, J. Y. Youn, *Research on the Promotion of Tourism Urban Tourism in Korea*, Korea culture & tourism policy Institute., 1999.
- [5] H. J. Kim, J. Y. Youn, *Research on the Promotion of Urban Tourism in Korea*, Korea culture & tourism policy Institute., 2000.
- [6] Y. C. Baek, N. H. Kim, "A Study on Practical use of Tourism Information Websites provided by Local Self – government", *The tourism & leisure society of Korea*, Vol. 14, No. 2, 2002, pp. 197-214.
- [7] Seoul Metropolitan Government, *A foreign tourist question surveyor's report in 2003*, 2003.
- [8] I. K. Oh, "Overview of Travel Information Dissemination, Problems & Refinement of Internet Homepages and Research Agenda.", *The tourism science*. Vol. 25, No. 2, 1998, pp. 312-319.
- [9] I. K. Oh, J. H. Choe, "Analysis of the Internet Tourism Information Structure of Provincial governments' Home Pages.", *The tourism science of society*. Vol.23, No. 2, 2000, pp.31-46.
- [10] Y. J. Lee, "Promotion of Web GIS in the Urban Tourist Information Services", *The tourism science paper of society*. Vol. 14, 2002, pp. 63~79.
- [11] J. Y. Lee, H. T. Lee, "A study on the Web-site Construction Strategy According to Color, Image and Information Type", *The tourism study of society*. Vol. 17. No.1, 2002, pp.71-92.
- [12] Y. M. Cheo, "Study on Providing of Web-based Optimized Conjoint Travel Goods Information", *The tourism & leisure society of Korea*. Vol.14, No.1, 2002, pp.121~140.
- [13] Korea National Tourism Organization, *A foreign tourist question surveyor's report in 2003*, 2003
- [14] Abels, G. Eileen, White, Marilyn Domas, Hahn, Karla, "A

- User-based Design Process for Web sites", *OCLS System & Service*, Vol.15, No.1, 1999, pp. 35-44.
- [15] Abels, G. Eileen, White, Marilyn Domas, Hahn, Karla, "Identifying Criteria for Web Pages" *A Case Study Internet*, Vol 7, No.4, 1997.
- [16] Abels, G. Eileen, White, Marilyn Domas, Hahn, Karla, The Development and Implementation of a User-based Design *Processing Web Site Design. CLIS Technical Report* No. 97-05. College of Library and Information service, University of Maryland, College, MD, 1997.
- [17] E. Beirne, P. Curry, "The impact of the internet on the information process and tourism decision making" *In Information and Communication Technologies in Tourism*, 1999, pp. 88-97.
- [18] Gunn, A. Clare, *Tourism Planning*. Taylor & Francis, 1998.
- [19] Gunther, Maier, *Exploiting new media : urban tourism and the data highway*. International Urban Tourism. Pinter, 1997.
- [20] E.K.R.E. Huizingh, "The content and Design of Website" *An Emprirical Study. Information & management*, Vol . 37, 2000, pp. 132-134.
- [21] N. Jakob, *Usability Engineering*: Academic Press, 1993.
- [22] K. Larson, M. Czerwinski, *Web page Design: Implications of Memory, Stucture and Scent for information Retrieval*, Conference on Human Factor and Systems, 1998.
- [23] K. McClave, *The Internet Imagery Revolution, Spatial Solutions for Korea*, 2001, pp. 85-100.
- [24] W. Scjertlern, B. Schmid, A.M. Tjoa, H. Werthner, *information and Communications: Technologies in Tourism*, Springer-Verlag/Wien, Proceedings the international Conference in Innsbruck, Austria. 1994.
- [25] Schertler, Walter, *Information and communication technologies in tourism*, proceedings of the international conference in Innsbruck, Austria. Springer-Verlag., 1995.
- [26] B. Shneiderman, *Designing, The User interface: Strategies for Effective Human-Computer interface*: Addison-Wesley, 2nd Edition, 1992.



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