

## Assessing the Development of the Silk Road Tourism in Jiangsu using Content Analysis of Network Text

Xinyi DAI

*School of Humanities, Jinling Institute of Technology, No.99,Hongjing Avenue, Jiangning District, Nanjing, China*

**Abstract** — Web text content analysis reveals that the Silk Road tourism in Jiangsu has obvious "enthusiastic official, but indifference civil" situation. Through the establishment of national parks, as well as using popular media in advertising, will help to change this situation, and build the Jiangsu Silk Road Cultural Heritage Tourism Belt eventually.

**Keywords-** *the silk road tourism; content analysis; the rost content mining*

### I. INTRODUCTION

According to the "Belt and Road" national strategy, the World Heritage title application of "Maritime Silk Road", and the "Year of Silk Road Tour"(2015), Jiangsu carrying out the Silk Road tourism actively relying on the advantage of location and the rich heritage of the Silk Road. Study on the present situation of the Silk Road tourism of Jiangsu contributes to improve the speed and quality of its development. This study was based on the sample of the travel notes and the official information about the Jiangsu Silk Road tourism on the Internet, used the ROST CONTENT MINING to research on the official work and the tourists' perception, to suggest for the development of the Jiangsu Silk Road tourism.

### II. SAMPLE SELECTION

The official information was selected from government websites, include the Jiangsu Tourism Government Network (jstour.gov) and the Jiangsu Tourism Information Network (jstour.com). The travel notes were selected from the popular travel websites in china include the Ctrip, the Mafengwo and the Qunar.Com. Sample screening was from January 1, 2015 to December 31, 2015. The official information sample was screened with "Silk Road" as the key word, and the travel notes sample was screened with "Jiangsu Silk Road" and "×× (city of Jiangsu) Silk Road" as the key words. Excluded the non Jiangsu information and the repeat parts, got a sample of 194 pieces of official information and another sample of 132 pieces of travel notes finally.

### III. SAMPLE PRETREATMENT

First, corrected typos; secondly, merged synonym, such as "advance" and "push"; next, modified the custom files of the ROST CONTENT MINING, added vocabulary such as the "Maritime Silk Road" and the "Belt and Road" to the custom word list of segmentation, added vocabulary such as "local" and "choice" to the filtering word list of segmentation and word frequency statistics; Finally, stored the pre treated samples as .txt format, pre analyzed with the CONTENT MINING ROST, checked the analysis results, continued to

modify the custom files, till there were no improper words in the results.

### IV. STATISTICAL ANALYSIS AND DISCUSSION

#### A. Word Frequency Analysis

Word frequency analysis found that there were 8 common words in the top 20 high-frequency words of the two samples, such as "tourism", "China", "Lianyungang", "culture", "Yangzhou", "scenic spots", "Suzhou", "Nanjing", accounted for 40% of the total number of the top 20 high-frequency words of the two samples. It showed that the similarity of concern about the Jiangsu Silk Road tourism from government and tourists is 40%. "Lianyungang", "Yangzhou", "Suzhou" and "Nanjing" are the most important destinations for managers and tourists. "Cultural" is regarded as the most important attribute of the Jiangsu Silk Road tourism by managers and tourists. Managers and tourists are very attention to the construction of "scenic spots". (Table1)

Destinations of the official information sample accorded to the frequency from high to low were "Lianyungang", "Yangzhou", "Suzhou" and "Nanjing", but from the travel notes sample were "Yangzhou", "Suzhou", "Nanjing" and "Lianyungang". Although the government of Lianyungang has done a lot of work about the Silk Road tourism, but in the eyes of tourists it is still lagging behind "Yangzhou", "Suzhou" and "Nanjing".

Different vocabulary of the top 10 high-frequency words of the two samples were "development", "Silk Road", "push", "Jiangsu", "construction" and "national" in the official information sample, and "history", "museum", "Slender West Lake" and "scenic spots" in the travel notes sample. Showed that managers focused on development, but tourists are concerned about resources and products.

The "Silk Road" as the keyword was ranked the 3rd in high frequency vocabulary of the official information sample, but was absent from the top 20 high-frequency words of the travel notes sample, showed that although managers have done a lot of work about the Silk Road tourism, but the theme has not been recognized by tourists.

*B. Social Network and Semantic Network Analysis*

Social Network Analysis as a kind of social relationship research method, its significance lies in that it can quantitative analysis on the relationship in various networks accurately, and provide a quantitative tool for a middle range theory construction or empirical test, even can build the bridge between "macro" and "micro". Semantic Network Analysis expresses the relationship between knowledge and knowledge through the semantic relations of the object

Social Network and Semantic Network analysis were carried out on the two samples, and the top 20 groups of the Semantic Web words were extracted. "Development" and "tourism" were the highest co-occurrence words in the

official information sample. At the same time, the "development" co-occurred with 5 words, accounted for 25.96% of the total Semantic Web words; the "tourism" co-occurred with 15 words, accounting for 74.9% of the total Semantic Web words, showed that "development" is the focus of management of the Jiangsu Silk Road tourism at the current stage. "Museum" and "Suzhou" were the highest co-occurrence words in the travel note sample, at the same time, the "Suzhou" co-occurred with 5 words, accounted for 25.96% of the total Semantic Web words. It showed that the "museum" of "Suzhou" is the most important place for visitors to enjoy the Silk Road culture. (Table2)

TABLE 1. HIGH FREQUENCY VOCABULARY CONTRAST

rank	sample of official information	Word frequency	sample of travel notes	Word frequency	rank	sample of official information	Word frequency	sample of travel notes	Word frequency
1	tourism	13276	Yangzhou	1300	11	tourist	1251	gardens	184
2	development	1709	Suzhou	1291	12	market	1246	Jiangnan	180
3	the Silk Road	1509	Nanjing	1197	13	cooperation	1245	hotel	179
4	advance	1504	history	1161	14	Yangzhou	1232	President Office	171
5	Jiangsu	1482	museum	1145	15	scenic spot	1230	Culture	170
6	China	1387	Slender West Lake	1129	16	service	1217	Dongguan Street	165
7	build	1378	scenic spot	1112	17	develop	1196	architecture	163
8	country	1372	Lianyungang	1107	18	Suzhou	1195	snack	162
9	Lianyungang	1287	scenic spot	1103	19	Nanjing	1194	tourism	161
10	culture	1262	China	199	20	enterprise	1188	characteristic	159

TABLE 2. SEMANTIC WEB VOCABULARY COMPARISON

Semantic Web vocabulary of official information sample N=25446						Semantic Web vocabulary of travel note information sample N=2593					
related words		frequency	related words		frequency	related words		frequency	related words		frequency
development	tourism	1376	tourism	Tourism Bureau	1183	museum	Suzhou	160	Yangzhou	Architecture	125
tourism	advance	1324	tourism	service	1178	Yangzhou	Slender West Lake	144	Qinhuai River	Scenery zone	125
country	tourism	1254	market	tourism	1174	Yangzhou	history	143	Scenery zone	Confucian temple	125
development	advance	1254	cooperation	tourism	1172	history	Culture	138	Yangzhou	The ancient canal	125
tourism	Jiangsu	1238	country	development	1172	Qinhuai River	Confucian temple	129	history	Dongguan Street	124
china	tourism	1235	tourism	develop	1171	Yangzhou	Culture	128	gardens	Suzhou	124
tourism	the Silk Road	1229	build	advance	1170	Yangzhou	scenic spot	128	gardens	Jiangnan	124
build	tourism	1225	country	advance	1168	Suzhou	Jiangnan	127	scenic spot	Suzhou	124
tourism	tourist	1203	propaganda	tourism	1167	snack	Suzhou	127	china	Culture	124
tourism	tourism industry	1201	development	build	1167	Yangzhou	Dongguan Street	125	Yangzhou	Nanjing	124
development	tourism industry	1185									



"tourism" have formed some Sub Semantic Network, indicated the main tasks and the methods of the Jiangsu Silk Road Tourism management at the present stage. Some specific resources such as "Lianyungang", "Yangzhou", "Suzhou", "Nanjing" were located on the periphery of the network, showed that in the context of the manager, local tourism development must serve the overall planning. (Figure.1)

Dense arrows were mainly connected with "Yangzhou", "Suzhou" and "Nanjing" on the Semantic Web map of the travel notes sample and formed three Sub Semantic Networks. Center of the three Sub Semantic Networks gathered vocabulary that reflected the common characteristics of the center words, such as "Jiangnan", "history", "culture", "garden" and "well known". The three Sub Semantic Networks constituted the main part of the semantic network, showed that "Yangzhou", "Suzhou" and "Nanjing" are the most famous destination of Jiangsu, they illustrate the "history" and "culture" of "Jiangnan", "garden" is the most representative landscape of "Jiangnan". (Figure.2)

"the Huaguo", "Lianyungang" and "the Yantai" were free from the center, indicated the difference of the characteristics from "Yangzhou", "Suzhou" and "Nanjing".

"the Tang", "hot spring" and "the Qinhuai River", "scenery zone", "the Confucius Temple" formed independent Semantic Sub Networks, showed that these scenic spots have monopolistic tourism resources and well construction.

## V. PROBLEMS AND COUNTERMEASURES

### A. Problems

The study found that Jiangsu Silk Road tourism has obvious "enthusiastic official, but indifference civil" situation, investigate the reason, on the one hand, cultural tourism as an advanced spirit enjoyment have certain requirements for the cultural accomplishment of the tourists, carry out cultural tourism must cultivate the tourists first; on the other hand, the direct cause is the promotion is not close to the masses. Government held forum and recommend meeting, organized the Tourism Festival and various events to promote the Silk Road tourism. However, these events were professional and limited audience, so have little effect in the masses. The Tourism Bureau of Jiangsu released five Jiangsu Silk Road boutique travel routes<sup>1</sup> on April 11, 2015, but till December 31, 2015, there were not retrieved any related tourism products on travel agency's official websites, such as CITS.CN, CYTS.CN, YTS.CN, CCT.CN, and tourism electricity supplier websites, such as Ctrip and tuniu.com, however, these platforms are the main channels of tourists to get the information and make decisions.

<sup>1</sup> The 5 routes are: "Re take the Silk Road"--4 days tour of Lianyungang, Suqian, Xuzhou; "Searching for history, drunken Beauty of the Silk Road"--3 days tour of Nanjing and Yangzhou; "Enjoy the style of the Silk Road"--The Silk Road culture experience tour of Suzhou, Wuxi, Nanjing; the "Canal" and the "Maritime Silk Road"--4 days tour of Yangzhou, Huaian and Lianyungang; 3 days silk weaving tour of Suzhou and Wujiang.

### B. Countermeasures

**Building national park:** The national park is an effective system for the protection and utilization of the natural and cultural heritage of the country. First, the resources of national park are state-owned and the management responsibilities borne by higher level government, more administrative resources; secondly, the national park is a public service category; public welfare is the core of the national park system.

The "Silk Road" as a linear heritage, involving a wide range of areas, have high requirements for regional cooperation, managed by the higher level government is conducive to overall scheduling, ensure the regional cooperation carry out smoothly. The "Silk Road" as an ancient and rich cultural heritage have higher education requirements for appreciators, using museums, National Parks and other public institutions culture tourists is very important to Jiangsu Silk Road tourism development, high frequency of "museum" in travel notes sample showed that the Silk Road tourism of Jiangsu is in the tourist training stage. Put larger and higher value heritage into National Park, such as the Yangzhou City ruins (Sui-Song Dynasty), the Dabao'en Temple ruins and so on, will promote the development of Jiangsu Silk Road tourism fundamentally.

**Close to the masses:** Create a multilingual website for Jiangsu Silk Road tourism promotion; advertise in the mainstream media; make documentary and propaganda film; publish graphic publicity materials regularly, and hand out free of charge in cafes, restaurants and other places; make full use of mobile Internet technology to promote anywhere at any time. In a word, make the Silk Road close to the masses.

## VI. THE SILK ROAD CULTURAL HERITAGE TOURISM BELT

"Tourism Belt" is an economic geographical concept, refers to a highly developed tourism zonal area where put the transportation routes as principal axis, and based on tourism nodes on principal axis or in its attractive range. "Cultural Heritage Tourism Belt" is a new concept, refers to a zonal tourism area that make the major cultural heritage point on the development axis as the core, play the attraction of tourism resources to form tourist flow, then give full play agglomeration and radiation function of the core tourism to drive the different levels tourism nodes of surrounding area.

Based on the 5 boutique tourist routes, use of the convenient conditions of the integration of Nanjing, Zhenjiang and Yangzhou, drive Zhenjiang become the second class tourist point; use of the advantage of theme park construction of Changzhou, construct the Silk Road Theme Park, rich the Silk Road tourism products to meet the needs of young tourists, drive Changzhou become the second class tourist point; by virtue of the Intangible Cultural Heritage of Nantong Blue Calico Printing and Dyeing and the origin of Chinese modern national industry, Nantong, Suzhou and Wuxi will constitute "Jiangsu ancient dyeing techniques and modern national industry development" thematic tourism routes together, form a sub unit of the Silk Road of Jiangsu

tourism, promote Nantong become the secondary tourism spot; relying on the "New Route of Jiangsu Tourism", promote Taizhou, Yancheng become the third class tourism spots. At the same time, support Xuzhou, Suqian, Lianyungang, relying on the Longhai line in the west to make the Silk Road Tourism's inter provincial integration,. And then form the Jiangsu Silk Road Cultural Heritage Tourism Belt.

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