## Analysis and Evaluation of Landscape Based on Social Media

\*大崎 雄治<sup>1</sup>、吉川 真<sup>2</sup>、田中 一成<sup>2</sup> \*Osaki Yuji<sup>1</sup>, Yoshikawa Shin<sup>2</sup>, Tanaka Kazunari<sup>2</sup>

## 1. 大阪工業大学大学院、2. 大阪工業大学

1. Osaka Institute of Technology Graduate School, 2. Osaka Institute of Technology

In recent years, tourism-based community development that make full use of local resource such as nature, cluture, history and industy is expected. In tourism-based community development, beside to improve the attractiveness of local resource, it is important to know the volition of visitor to travel such as "I want to go", and "I want to go again". We should advance strategic community development that vistor's preference and behaviors.

Meanwhile, with the rapid development of the information technology in recent years, the development of smart devices and the use of socal media are expanding. Along with these phenomenon, huge spatial data groups called big data have been created. Big data is included evaluation data such as reviews on sightseeing. To improve the attractiveness of tourist area and create new value, the utilization of such big data is expected so much. We conceive that it will be a clue to improving future sightseeing area by analysing big data.

In this study, the authors try to analyze and evaluate the landscape in Nara as tourist area using texts and photographs posted on social media. They used Twitter and Flickr in social media serdice with the various kinds.

Texts posted by visitor extracted from Twitter organized using text mining such as morphological analysis. In addition, they extracted emotional texts and sorted out emotional words. To understand the impression evaluation in each object, they analysed evaluation of object by using emotional words. Also, they extracted the landscape which visitors looked using cooccurrence words.

Photos taken by visitor extracted from Flickr sorted out by using computer vision. They clarified the position where each landscape elements is photographed by using hot spot analysis. To understand the each nationality, they grasped subject imfomation that is easy to photograph in each nationality. In addition, they clarified main subject based on tag information in photos and caluculate both subjectdistand and photodraphing direction in each object.

As a result, the authors revealed the landscape by vistor using posted on socal media in this study.

キーワード:観光地、ソーシャルメディア、テキストマイニング、画像解析 Keywords: tourist area, social media, text mining, computer vision