

Applicability of Geotagged SNS Data as an Information Source about Local Cultures: Case Study on Dialects and Food Cultures in Japan

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Abstract. This paper explores the applicability of geotagged log data from social networking services (SNSs) as a source of geospatial information about local cultures. Today, people post information on their everyday lives to SNSs. Geotagged tweets on Twitter can serve as a source of local geospatial information and can contain substantial information about local cultures. Since each tweet includes up to 140 characters, we can analyze local cultures as they are expressed through the geotagged tweets. This paper focuses on examples of dialects and food culture in Japan. The data for the analysis were geotagged tweets posted between February 2012 and November 2014 in Japan. Tweets mentioning some forms of dialects and some types of foods were extracted from the data. In addition, maps on these tweets were compared with previous studies on dialects and statistics for food expenses.

Firstly, da-ka-ra and ya-ka-ra, which mean because in English, were considered in the analysis of dialects. Tweets using da-ka-ra were posted more in eastern Japan and tweets using ya-ka-ra were posted more in western Japan. This result corresponds to responses to questionnaires on dialects in Japan in some previous studies. Secondly, some types of noodles were considered as a case study of local food culture in Japan. The geographic distribution of tweets mentioning ramen, which is one type of noodle in Japan, corresponds broadly to the distribution of expenditure on ramen in national statistics for food expenses. These results suggest that local cultures can be visualized and analyzed by using geotagged SNS data. Since the data have more detailed spatiotemporal information than many other sources, they are likely to be used in future research into local cultures.

Keywords. Geotagged tweets, Local culture, Dialect, Food culture