

Analysis of Urban Population Using Twitter Distribution Data: Case Study of Makassar City, Indonesia

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Abstract : In the past decade, the social networking app has been growing very rapidly. Geolocation data is one of the important features of social media that can attach the user's location coordinate in the real world. This paper proposes the use of geolocation data from the Twitter social media application to gain knowledge about urban dynamics, especially on human mobility behavior. This paper aims to explore the relation between geolocation Twitter with the existence of people in the urban area. Firstly, the study will analyze the spread of people in the particular area, within the city using Twitter social media data. Secondly, we then match and categorize the existing place based on the same individuals visiting. Then, we combine the Twitter data from the tracking result and the questionnaire data to catch the Twitter user profile. To do that, we used the distribution frequency analysis to learn the visitors' percentage. To validate the hypothesis, we compare it with the local population statistic data and land use mapping released by the city planning department of Makassar local government. The results show that there is the correlation between Twitter geolocation and questionnaire data. Thus, integration the Twitter data and survey data can reveal the profile of the social media users.

Keywords : geolocation, Twitter, distribution analysis, human mobility

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