World Academy of Science, Engineering and Technology
International Journal of Computer and Information Engineering
Vol:12, No:06, 2018

Quantifying Mobility of Urban Inhabitant Based on Social Media Data

Authors : Yuyun, Fritz Akhmad Nuzir, Bart Julien Dewancker

Abstract : Check-in locations on social media provide information about an individual’s location. The millions of units of data generated from these sites provide knowledge for human activity. In this research, we used a geolocation service and users’ texts posted on Twitter social media to analyze human mobility. Our research will answer the questions; what are the movement patterns of a citizen? And, how far do people travel in the city? We explore the people trajectory of 201,118 check-ins and 22,318 users over a period of one month in Makassar city, Indonesia. To accommodate individual mobility, the authors only analyze the users with check-in activity greater than 30 times. We used sampling method with a systematic sampling approach to assign the research sample. The study found that the individual movement shows a high degree of regularity and intensity in certain places. The other finding found that the average distance an urban inhabitant can travel per day is as far as 9.6 km.

Keywords : mobility, check-in, distance, Twitter
Conference Title : ICSME 2018 : International Conference on Social Media Engineering
Conference Location : Copenhagen, Denmark
Conference Dates : June 11-12, 2018