

MASTER UNIVERSITARIO EN GESTIÓN Y VALORACIÓN URBANA

RESUMEN PROPUESTA DE TESIS

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Título de la Propuesta de tesis: Analysis the Temporal-Spatial Structure of Beijing from the point view of social media

Urban structure has long been the essential topic of research in urban geography and urban planning. Especially after the industrial revolution, the rapid change of urban structure leads to the continuing debates and discussion about urban structure. The traditional way mostly utilize official documents of urban plan or land use to analyze the urban structure, such as analyzing the evolution of land use in a city.

Nowadays, thanks to the development of technology, it opens a novel tunnel to show the changes and operational mechanism of human society. The "big data" generated by the Internet captures the detailed individual activities in cities, and the aggregation of individual information could form a new temporal-spatial map. Since 2009, the explosion of social media around the world, such as twitter and Facebook, studies based on those big data have sprung up. In fact, despite the ability of social media could break through the limitation of physical distance in some degree, it retains a strong relationship with physical, cultural, and linguistic boundaries. (Monica Stephens, *et al.* 2013) However, many literatures only focus on the networks and information flows of urban areas, the deeper relation between physical city and virtual data still have not been discussed completely.

Therefore, in this work, it would detect the temporal-spatial structure of Beijing metropolitan area via social media (Weibo) data, investigate the pattern of the changes of the temporal-spatial structure during one week in Beijing. Weibo is one of the most popular social media platform in China. Its mechanism is similar to Twitter. According to its latest earnings, the daily active user of Weibo reaches 106 million.

Beijing has been China's capital more than 1000 years, but the obvious expansion of urban scale began 60 years ago. As the second largest city in China, its trajectory of development and the dynamic situation could be seem as an epitome of the dramatic change of China. Rapid expansion and growth, extensive economy, heavy pollution and terrible traffic congestion are not only the characters of Beijing, but also Chinese society. Hence, the urbanization issues of Beijing city have aroused attention of researchers and officials since many year ago. The topics of study already penetrated into many aspects of the city: urban expansion, land use change monitoring and modeling, sustainable management, and contamination etc. However, few of them introduces social media as a method to investigate urban space of Beijing.

Thus, this paper would integrate the demographic situation, employment data and other factors into a model which is aim to examine the relation between dynamic spatial-temporal structure with the real urban world. It could uncover the challenges that the city meets now, and helps to enact strategies to rebalance the development of urban area.