Moving towards happiness? Understanding travel moods through twitter data in Turin

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# ABSTRACTS BOOK

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examines questions related to horizontal and vertical policy integration; risk and investment management; the epistemological and ontological assumptions underlying the current transport planning methods; the relationship between planning and the path-dependence in the technological development trajectory; constraints and forces on developing strategic visions; and the means for wider societal discussion on the democratic acceptability of the distribution of benefits and burdens.

# 997 | MOVING TOWARDS HAPPINESS? UNDERSTANDING TRAVEL MOODS THROUGH TWITTER DATA IN TURIN

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**ABSTRACT:** The research will address the following questions: does urban mobility matter for health, and mental health in particular? How does each transport mode relate to our level of stress/happiness?

A previous study conducted on Turin (Melis et al. 2015) showed that among indicators related to urban structure and social composition, 'accessibility by public transport' seems to be the one with strongest relation with mental health (depression) outcomes. Starting from this results, we decided to further explore this association through the use of data from social media.

Recent trends in the use of social networks have opened up new opportunities in the field of urban and transport studies: the great amount of data coming from Twitter is an example, providing easily available, often geo-referenced, marginally costly, datasets offering new insights on individual and collective life. The accuracy and reliability, as well as representativeness of the results coming from the use of this new source of data in the mobility and planning field is undoubtedly growing.

The project uses Twitter data collected for the metropolitan area of Turin (IT) and analyses it using a Semantic Analysis algorithm to show spatiotemporal levels of happiness (valence) of users, related to the transport mode they have been using. Geographic Information Systems (GIS) and spatial analysis techniques are then used to visualize spatial patterns and associations among happiness levels and contextual variables, such as land-use. From a methodological point of view, results can be compared to research conducted on US cities by Flint University (Rybarczyk and Banerjee 2015), as the method used is the same. The purpose of the study is exploratory, in order to understand which use can be done of such a rich data source as social media information.

Therefore, the results may be used to promote the use of social media data by transportation planners and public health officials for developing more effective transportation plans and policies, as well as to understand the degree of satisfaction/stress linked to different transport modes.