A New Hint to Transportation-

Analysis of the NYC Bike Share System

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LITRATURE SURVEY: 1

TITLE : NYC Bike Share

AUTHOR : Janette Sadik-Khan - Former commissioner of the New York City Department of Transportation

In just the last five years, New York City has made huge strides in creating modern, safer streets. Drawing from Mayor Michael Bloomberg's PlaNYC sustainability agenda, we've established more than 300 miles of bike lanes, 30 plazas and made expansive street safety redesigns to accommodate all street users citywide—all while recording the five safest years in city history and logging remarkable economic gains in corridors where projects were implemented. Citi Bike presents a new way for New Yorkers to get around that takes advantage of these changes to our streets, and it also marks a new standard for public participation in planning. Behind every planned station on the street there are thousands of suggestions, handwritten notes on maps and direct comments to system planners and online from a vast spectrum of New Yorkers.

Link : https:// www.nyc.gov/html/dot/downloads/pdf/bike-share-outreach-report.pdf

LITRATURE SURVEY: 2

TITLE : Bikeshare: A Review of Recent Literature

AUTHOR : Elliot Fishman

The number of cities offering bikeshare has increased rapidly, from just a handful in the late 1990s to over 800 currently. This paper provides a review of recent bikeshare literature. Several themes have begun to emerge from studies examining bikeshare. Convenience is the major motivator for bikeshare use. Financial savings has been found to motivate those on a low income and the distance one lives from a docking station is an important predictor for bikeshare membership. In a range of countries, it has been found that just under 50% of bikeshare members use the system less than once a month. Men use bikeshare more than women, but the imbalance is not as dramatic as private bike riding (at least in low cycling countries). Commuting is the most common trip purpose for annual members. Users are less likely than private cyclists to wear helmets, but in countries with mandatory helmet legislation, usage levels have suffered. Bikeshare users appear less likely to be injured than private bike riders. Future directions include integration with ebikes, GPS (global positioning system), dockless systems and improved public transport integration. Greater research is required to quantify the impacts of bikeshare, in terms of mode choice, emissions, congestion and health.

Link:
https://www.researchgate.net/publication/275517751_Bikeshare_A_Review_of_Recent_Literature

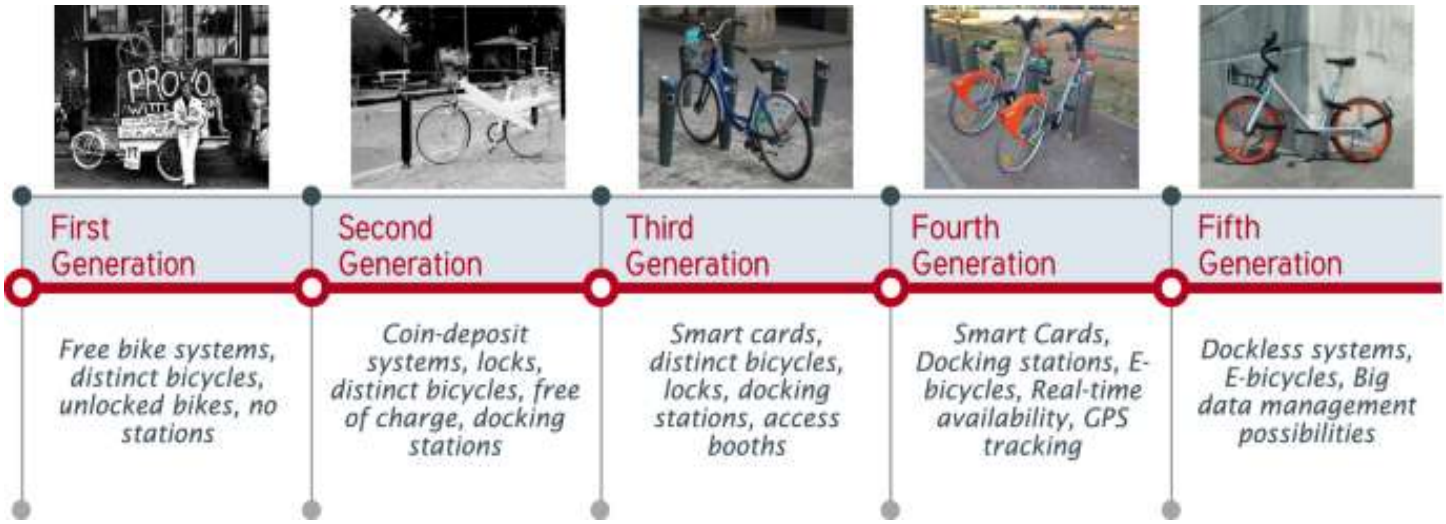
LITRATURE SURVEY: 3

TITLE : Bicycle sharing systems demand

AUTHOR : Inês Fradea, Anabela Ribeiroa

One of the problems in bicycle sharing systems design is the estimation of the potential demand to the service, especially in countries where this type of systems is not yet implemented. The main objective of this methodology is to relate the demand of bike-sharing systems with external characteristics that affects the bicycle usage in order to obtain its territorial distribution. Due to the limited information available in Portugal this paper will focus on the determination of demand based on the experience of other countries. The method is applied to a middle size Portuguese city, Coimbra.

Link:
https://www.sciencedirect.com/science/article/pii/S187704281400086X/pdf?md5=8a741673f04556abb71d68c62fc56b2c&pid=1-s2.0-S187704281400086X-main.pdf



LITRATURE SURVEY: 4

TITLE : Impact Of Bike Sharing In New York City

AUTHOR : Stanislav Sobolevsky1* , Ekaterina Levitskaya1 , Henry Chan2 , Marc Postle2 , Constantine Kontokosta1 1 New York University, New York.

The Citi Bike deployment changes the landscape of urban mobility in New York City and provides an example of a scalable solution that many other large cities are already adopting around the world. Urban stakeholders who are considering a similar deployment would largely benefit from a quantitative assessment of the impact of bike sharing on urban transportation, as well as associated economic, social and environmental implications. While the Citi Bike usage data is publicly available, the main challenge of such an assessment is to provide an adequate baseline scenario of what would have happened in the city without the Citi Bike system. Existing efforts, including the reports of Citi Bike itself, largely imply arbitrary and often unrealistic assumptions about the alternative transportation mode people would have used otherwise (e.g. by comparing bike trips against driving). The present paper offers a balanced baseline scenario based on a transportation choice model to describe projected customer behavior in the absence of the Citi Bike system. The model also acknowledges the fact that Citi Bike might be used for recreational purposes and, therefore, not all the trips would have been actually performed, if Citi Bike would not be available. The model is trained using open Citi Bike and other urban transportation data and it is applied to assess direct benefits of Citi Bike trips for the end users, as well as for urban stakeholders across different boroughs of New York City and the nearby Jersey City. Besides estimating the travel time and cost savings, the model also reports the associated gas savings, emissions cut and additional exercise for the customers, covering all three areas of anticipated impacts - economic, social and environmental

Link: https://arxiv.org/pdf/1808.06606