

# BIXI Report: Revolutionizing Urban Mobility in Montreal

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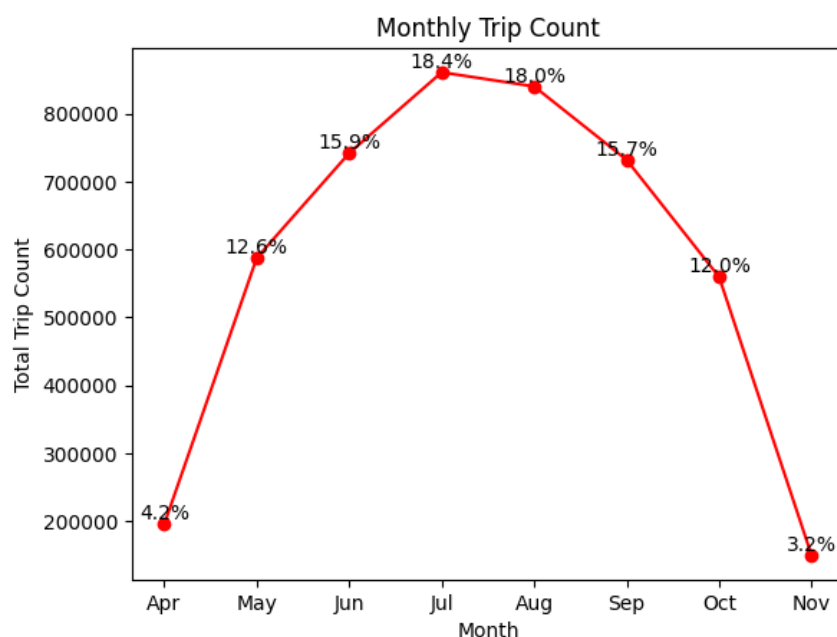
BIXI, a visionary initiative based in Montreal, serves as the custodian of a city-wide bike-sharing system. The name "BIXI" ingeniously merges the concepts of 'bicycle' and 'taxi,' encapsulating the essence of this pioneering venture. Dedicated to environmental stewardship, BIXI has ushered in an eco-friendly system that empowers individuals to conveniently access bicycles from one station and conveniently return them to another, seamlessly distributed across Montreal's expanse.

With a meticulously curated dataset comprising 540 stations and a staggering 8,584,166 trips, the challenge at hand is to extract a comprehensive comprehension of the data, unearth the pivotal determinants shaping usage volumes, identify popular stations, and ultimately steer the trajectory of business growth.

## Navigating the Analytical Odyssey

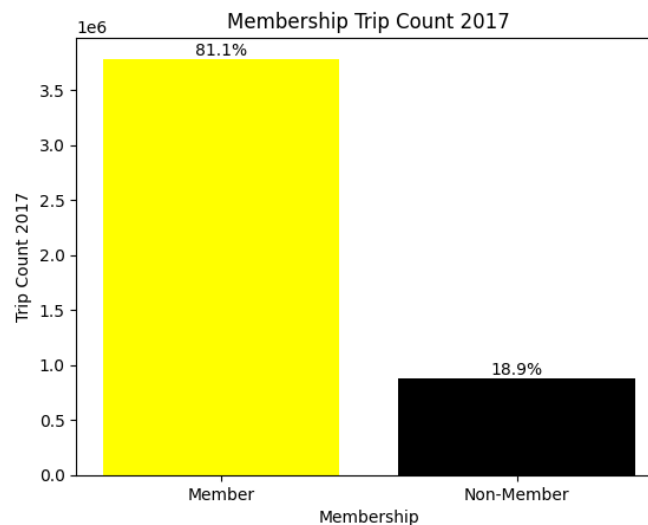
The dataset at our disposal is predominantly concentrated on 8 months of the year, omitting the colder months of January, February, March, and December. This omission is attributed to the inhospitable weather conditions that deter bike usage during Montreal's frigid winters. Notably, a remarkable 16% upsurge in total trips emerged in 2017 compared to the preceding year.

Delving deeper into the monthly breakdown, a discernible trend emerges – warmer seasons notably kindle greater utilization of BIXI bikes, with summer taking the lead. A striking average of 27,000 trips per day was documented during the peak summer months of 2017.



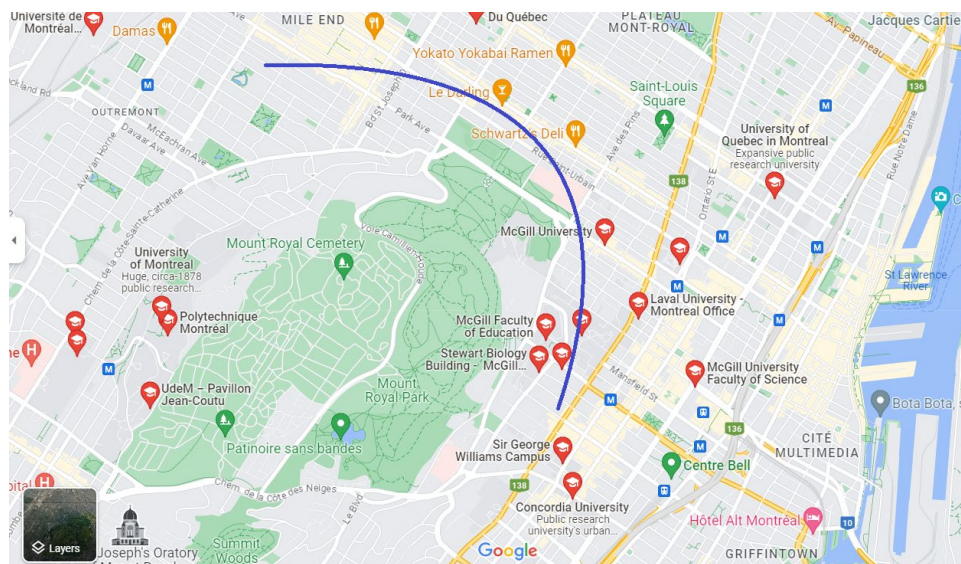
## Membership: A Defining Catalyst

Within this data tapestry, membership status emerges as a compelling factor. Astonishingly, 81.1% of the aggregate trips in 2017 were attributed to members, with half of these trips transpiring during the summer months. Particularly, the zenith of BIXI's demand manifests itself in the vibrant month of July, where the allure of BIXI bikes is most irresistible.



## Pinnacle Points of Departure

Mackay, Metro Mont-Royal, Metro Place-des-Arts, Metro Laurier, and Metro Peel materialize as the quintessential nexus points from which journeys commence. The epicenter resides in Mackay / de Maisonneuve station, a bustling locale pulsating with life. Noteworthy institutions like the Montreal Museum of Fine Arts, Concordia University, and several prestigious establishments converge here, rendering it a dynamic hub.



The blue curve represents the vicinity of the popular stations.

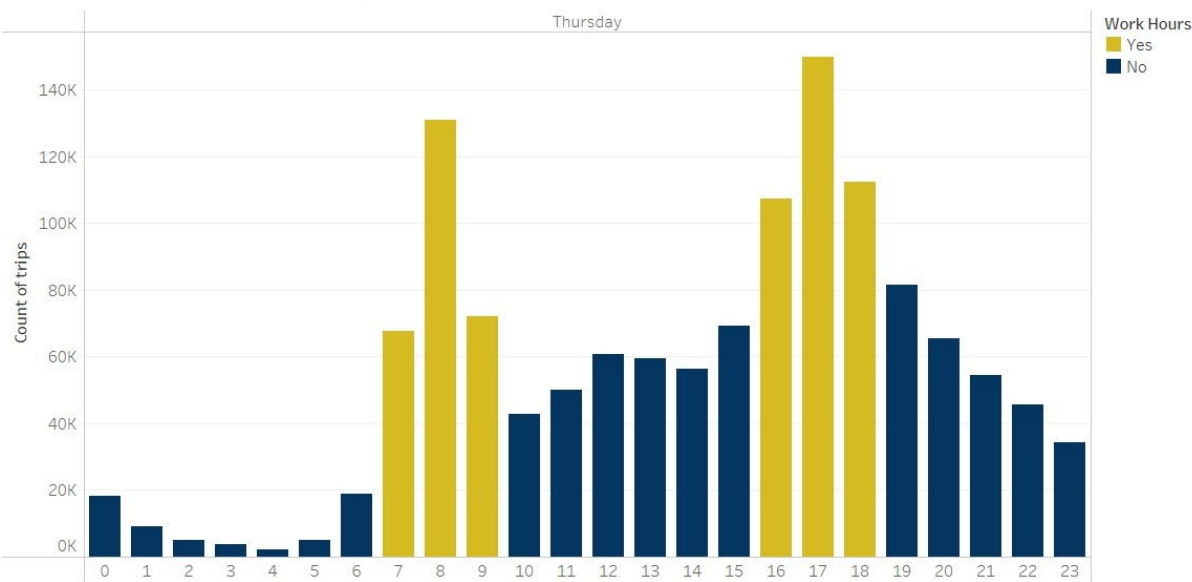
This most likely means that the highest rate of Bixi bike usage is due to the student population who study or live in the specified region.

## Temporal Usage Patterns: A Chronicle of Mobility

The dataset delineates intriguing temporal trends. Starting trips from Mackay exhibit a pronounced morning-evening dichotomy, with mornings witnessing modest commencements, presumably due to individuals converging from various corners of the city for work (rush hours). In contrast, evenings and nights showcase elevated starting trips, attributed to commuters journeying homeward from Mackay station. Afternoons mirror a balance, mirroring lunch breaks and short commutes within the vicinity.

### Trip Count During a Typical Weekday

Work-related hours during the weekday witness the highest use of Bixi bikes

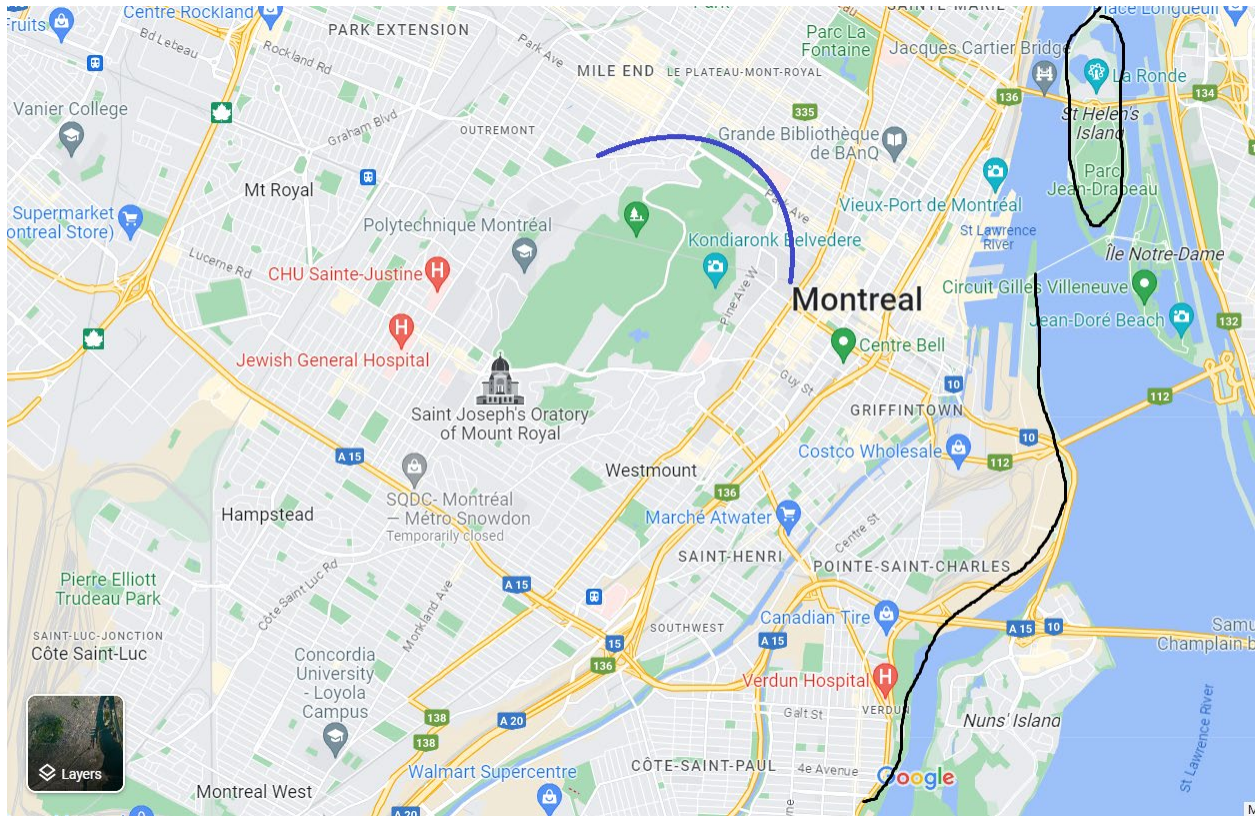


Comparatively, evenings and afternoons stand as veritable peaks, eclipsing morning and night rides. This divergence could be attributed to climatic variations, as warmer conditions prevail during these hours in the cold-prone city of Montreal. Moreover, the hustle and bustle of afternoons and evenings, especially in prime locations like Mackay, fuels heightened mobility.

## Subway Stations: The Round-Trip Nexus

Metro Jean-Drapeau, Metro Angrignon, Berlioz, LaSalle, and Basile-Routhier stand atop the round-trip hierarchy, exhibiting a remarkable prevalence of return journeys compared to other stations. This phenomenon finds its rationale in their subway station status. The typical narrative unfolds with commuters alighting at these stations, employing BIXI bikes for short commutes to destinations like workplaces, then reutilizing the subway for longer journeys back to their residences.

Our analysis of the geographical coordinates of the stations above reveals that they are mostly located around lakes and riversides (particularly Lake Saint Luis), parks, and green areas (e.g., Jean Drapeau Park, and Domaine Saint-Paul). Some of these areas are specified with a black line in the following image:



## Strategizing Business Ascension

The campaign's primary deployment should be concentrated in high-traffic stations and specific geographic zones, with a strong focus on areas surrounding universities. These zones include adjacent riverside spots and verdant open spaces, as outlined earlier.

Our recommendation for the target audience centers on students within the specified region, encompassing both those who reside and study there. This group represents a prime demographic for effective membership conversion efforts.

Considering the target demographic, we propose the implementation of student-oriented promotions, with student discounts taking center stage. Such incentives have the potential to significantly boost membership acquisition among this group.

Timing is pivotal. Given the notable upswing in Bixi usage during the summer months and the lull in university activities during this period, we suggest initiating the campaign shortly before the summer season commences. This temporal alignment capitalizes on heightened interest while universities experience reduced foot traffic.

To ensure widespread and efficient dissemination of the promotion, we recommend leveraging the connectivity and engagement potential of university campuses, official websites, and student forums. This multifaceted approach guarantees that the campaign resonates with the target audience and garners maximum attention.