



SCOOTERS AND THE CITY:

An Analysis of E-scooter Operations in Canadian Cities

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BACKGROUND

Since their initial launch in 2017, shared e-scooter operations have exploded in popularity worldwide. In Canada, there are expected to be 23 municipalities hosting e-scooter fleets for the 2023 riding season throughout the country. In general, cities are allowing e-scooter to enter communities and use the public space with the hope of attaining the perceived benefits associated with the operations. However, due to the urban form being designed to separate different transportation modes, the introduction of the devices has impacted the public space in several ways. To respond to this, municipalities have begun exploring and implementing mitigation strategies to limit negative impacts.

RESEARCH QUESTIONS

- 1 What challenges to public space have municipalities encountered after introducing shared e-scooter services to their communities?
- 2 What strategies have municipalities used to remedy these challenges?
- 3 How can the results of the previous two questions be applied to municipalities interested in launching their shared e-scooter pilot?

RESEARCH METHODS

I first completed a document analysis of six public engagement reports from different Canadian municipalities. The reports compiled the results from community surveys on e-scooter pilots. I also conducted seven semi-structured interviews with municipal employees managing different Canadian cities e-scooter file.



KEY CHALLENGES

1 VOCAL OPPOSITION

There exists a subset of the population strongly opposed to e-scooter pilots and want the devices removed from public space.

3 INFRASTRUCTURE USES

Due to the development of the urban form, municipalities are still unclear the infrastructure type e-scooter should be ridden on.

5 HEALTH & SAFETY

Injuries are often associated with e-scooters due to the potential for accidents or collisions. A lack of helmet usage compounds the issue.

2 PARKING

Misparked e-scooter were identified as the most significant concern for pilots. Often attributed to oversaturation of devices.

4 RECKLESS BEHAVIOUR

Intoxicated riding, vandalism, speeding, and double-riding are all considered to be forms of reckless behaviour when riding an e-scooter.

6 BY-LAW ENFORCEMENT

Law enforcement in some communities have resisted enforcing e-scooter by-laws due to unclear wording or time commitments for writing tickets.

KEY STRATEGIES

1 EDUCATION

Educating the public about e-scooter operations and how they function is one of the best strategies to ensure the success of a pilot.

3 INFRASTRUCTURE USES

Signage can help helpful to direct or remind users where the devices should be ridden. Geofencing is important to limit access.

5 GENERAL MISCHIEF

Geofencing should be done to restrict access to buildings and other areas. Identifiable devices markers should also be considered.

2 SPEED

The use of speed governors and slow speed zones can be effective tools to reduce the concern of speeding devices.

4 PARKING

Device caps is the best strategy to reduce the challenges of misparked e-scooters. Parking corrals are also effective tools.

6 INTOXICATED RIDING

Nighttime riding bans, removal of devices from bar districts, and cognitive tests before an e-scooter unlocks are all potential strategies.

7 TRACKING SOFTWARE

Micromobility tracking software is considered essential for pilots due to the importance of quantitative data.

RECOMMENDATIONS

The recommendations focus exclusively on the different strategies and tools that municipalities interested in launching their own e-scooter pilot should consider before one is launched, to avoid potential challenges other communities have previously encountered.

PRIORITIZE EDUCATION



The best thing municipalities can do to limit concerns is to educate the public. Education can lead to proper riding etiquette being engrained in potential riders and reduce strong emotions in non-riders.

OPERATOR & DEVICE CAPS



Capping the number of operators that can work within the community and the number of devices they introduce to the public space can help avoid many issues such as misparked or vandalized devices.

UTILIZE TRACKING SOFTWARE



Micromobility tracking software provides in-depth data at both the micro and macro level. The utilization of tracking software allows municipalities to be proactive in limiting the impact of potential concerns.

HAVE CLEAR REGULATIONS



Ensuring that regulations are written in plain language and can be easily understood by the public can help avoid potential conflicts instead of ambiguous language. Regulations should also be easily accessible.

UTILIZE PHONE TECHNOLOGY



The use of a smartphone's GPS system can be used to geofence a service area which is critical for any e-scooter operation. Other implications include the use of cognitive tests during the evening to limit intoxicated riding.

ESTABLISH MITIGATION PLANS



Municipalities should be proactive in crafting different mitigation plans to ensure the city can quickly react to concerns ensuring that the overall impact is limited.

EQUIP E-SCOOTERS WITH SAFETY DEVICES



E-scooter safety should be prioritized by not only equipping basic safety features like horns and lights but also more advanced features like speed governors and sidewalk riding detection devices.

INVEST INTO PHYSICAL INFRASTRUCTURE



Municipalities should invest in physical infrastructure such as parking corrals to help e-scooter users park the devices in places that do not obstruct the public space. Signage can be used to reinforce proper riding etiquette.