



Cyclists Today

499



Whose street is it anyway?

A cordon count spatial study of Montreal's Plateau-Mont-Royal borough

Jean-Francois Rheault
June 28, 2019



About Eco-Counter



Design & manufacture
bike and pedestrian
counters

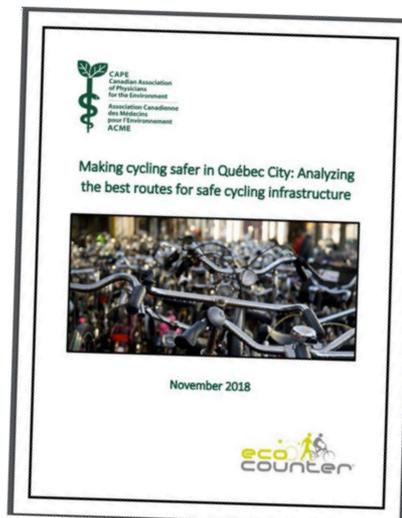


Work with cities to
develop bike count
programs



Enable a data-driven
approach to planning

Working for a safer, more bike-friendly world



Types of automated bike counters



Permanent

- Long-term
- Durable + robust
- Discreet
- Capture monthly, seasonal and yearly trends



Temporary

- Short-term
- Mobile
- Battery-powered
- Easy-to-deploy
- Great for pilot projects



Displays

- Communication modules
- High-impact
- Crowdpleasers!

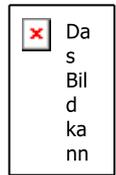
Das Bild kann zurzeit nicht angezeigt werden.

Capturing the growth of cycling in Montréal



40%

Increase in the number of bikes counted since 2009



1.34m

Bikes counted in 2018 on the St. Laurent/Bellechasse bike lane
(the busiest bike lane in Montréal)

Growth in winter cycling

 Das Bild kann zurzeit nicht angezeigt werden.

 Das Bild kann zurzeit nicht angezeigt werden.

 Das Bild kann zurzeit nicht angezeigt werden.

— The challenge?

It is hard to estimate the volume of people moving through a network or corridor

 Das Bild kann zurzeit nicht angezeigt werden.

 Das Bild kann zurzeit nicht angezeigt werden.

How do people move through a neighborhood?

Do our streets reflect mode-split?

Mode-share study 2018

19 streets

**In the past, this would
require ~75 counters**

 Das Bild kann zurzeit nicht angezeigt werden.

Mode-share study 2018

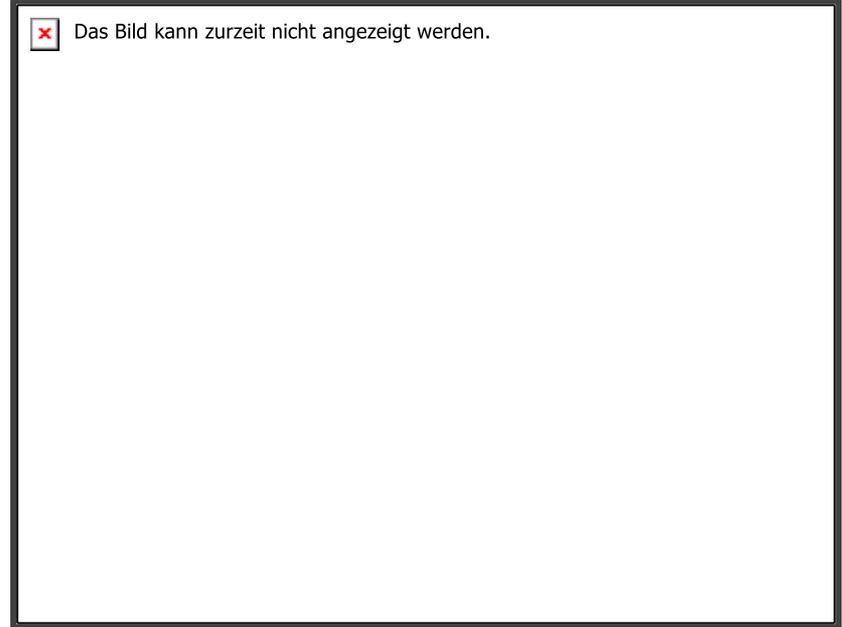
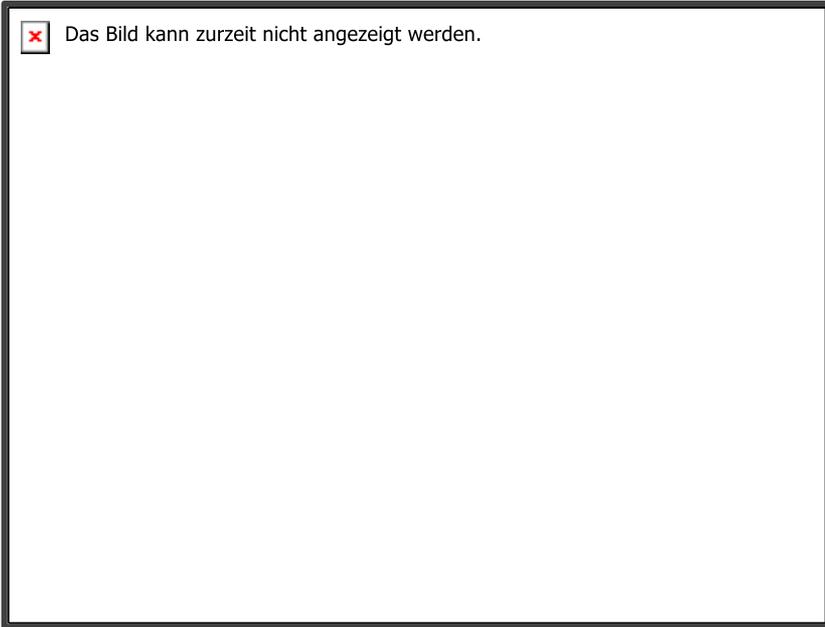
19 streets

2-week car, bike & ped
counts per street

Data extrapolation factors

 Das Bild kann zurzeit nicht angezeigt werden.

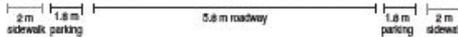
Counting bicycles, vehicles and pedestrians on all north-south streets across a neighborhood



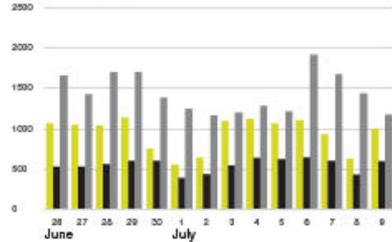
A low-resource approach to calculate mode-share

CLARK

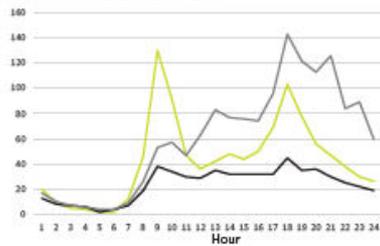
Short-Term Counts: June 26 - July 9, 2018



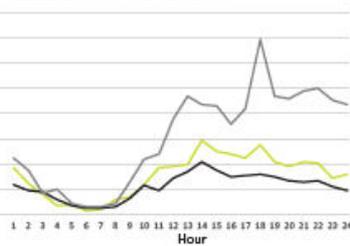
DAILY TOTALS BY MODE



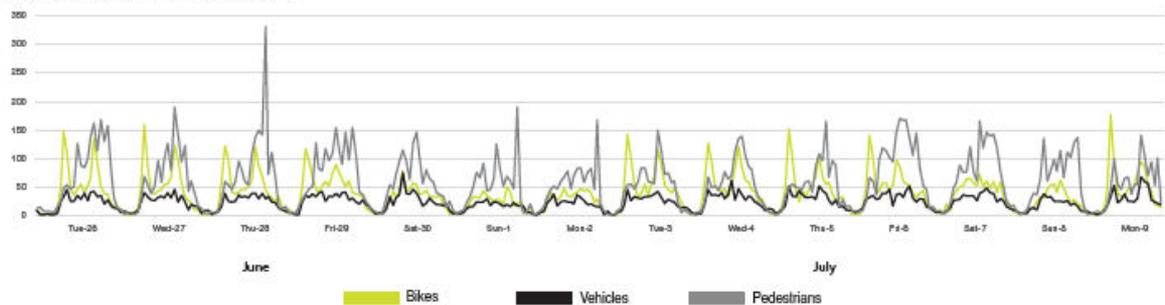
WEEKDAY HOURLY PROFILE



WEEKEND HOURLY PROFILE



DAILY PROFILE OF SHORT-TERM COUNT



“On the majority of streets in the neighbourhood, bikes and pedestrians constitute the majority of street users”

Das Bild kann zurzeit nicht angezeigt werden.

CLARK

Short-Term Counts: June 26 - July 9, 2018



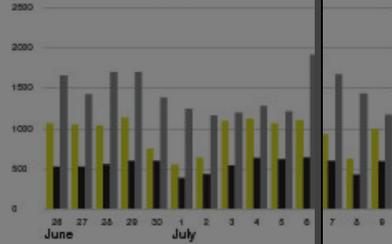
2 m sidewalk parking 1.8 m 5.8 m roadway

1.8 m parking 2 m sidewalk

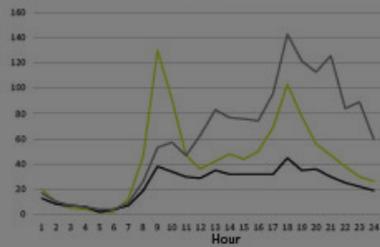
Street Space Allocation VS. Mode of Travel



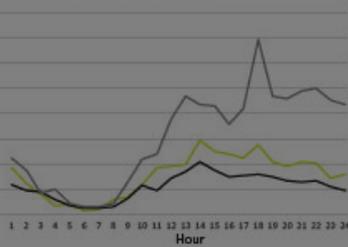
DAILY TOTALS BY MODE



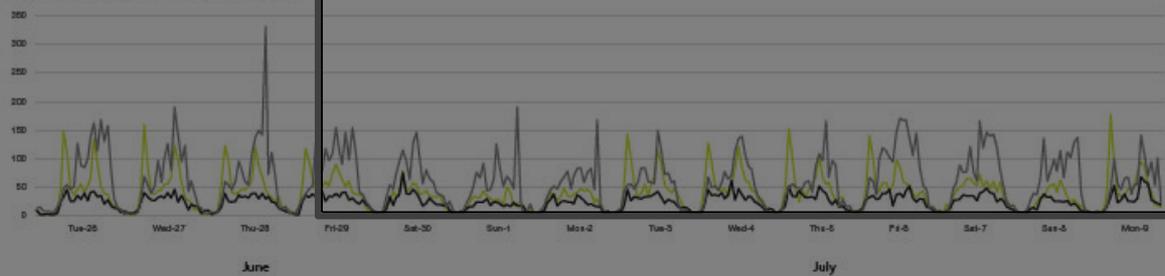
WEEKDAY HOURLY PROFILE



WEEKEND HOURLY PROFILE



DAILY PROFILE OF SHORT-TERM COUNT



Bikes Vehicles Pedestrians

A summer of short-term counts

*Throughout the short-term counts, **1.48 million passes were counted**, of which :*

- 17.5% were cyclist*
- 55.5% were vehicles*
- 27% were pedestrians*

Das Bild kann

Das Bild kann zurzeit nicht an...

Das Bild kann

Das Bild kan

Extrapolating AADT from short-term counts

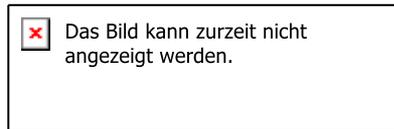
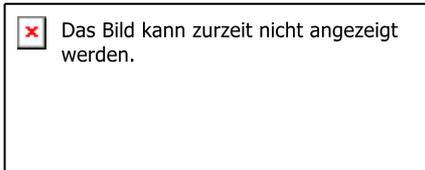
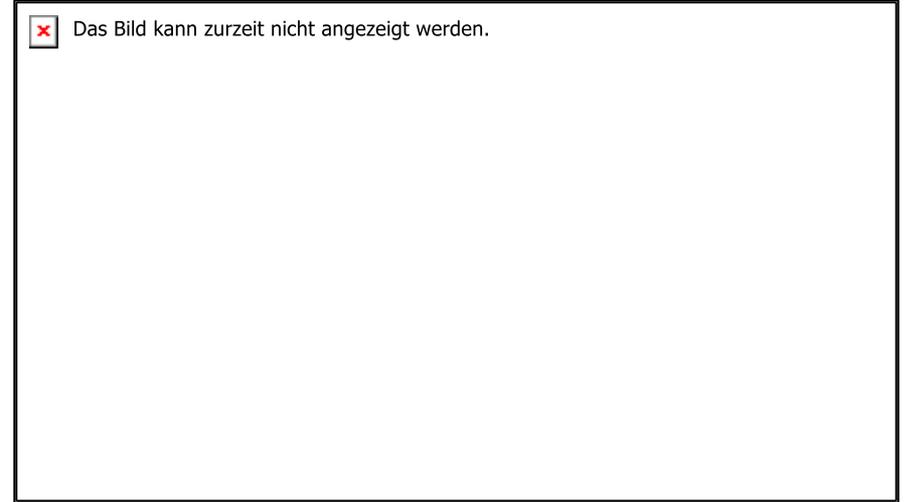


Das Bild kann zurzeit nicht angezeigt werden.

Das Bild kann zurzeit nicht angezeigt werden.

Das Bild kann zurzeit nicht angezeigt werden.

Extrapolating AADT from short-term counts



 Das Bild kann zurzeit nicht angezeigt werden.

 Das Bild kann zurzeit nicht angezeigt werden.

Planning for wellbeing



Measure the physical space allocated to each mode

 Das Bild kann zurzeit nicht angezeigt werden.

Laval Avenue – On street cycling infrastructure

 Das Bild kann zurzeit nicht angezeigt werden.

 Das Bild kann zurzeit nicht angezeigt werden.

Cyclists account for 35% of road users counted and are allocated 12% of physical street space

Clark Street – No bike infrastructure

 Das Bild kann zurzeit nicht angezeigt werden.

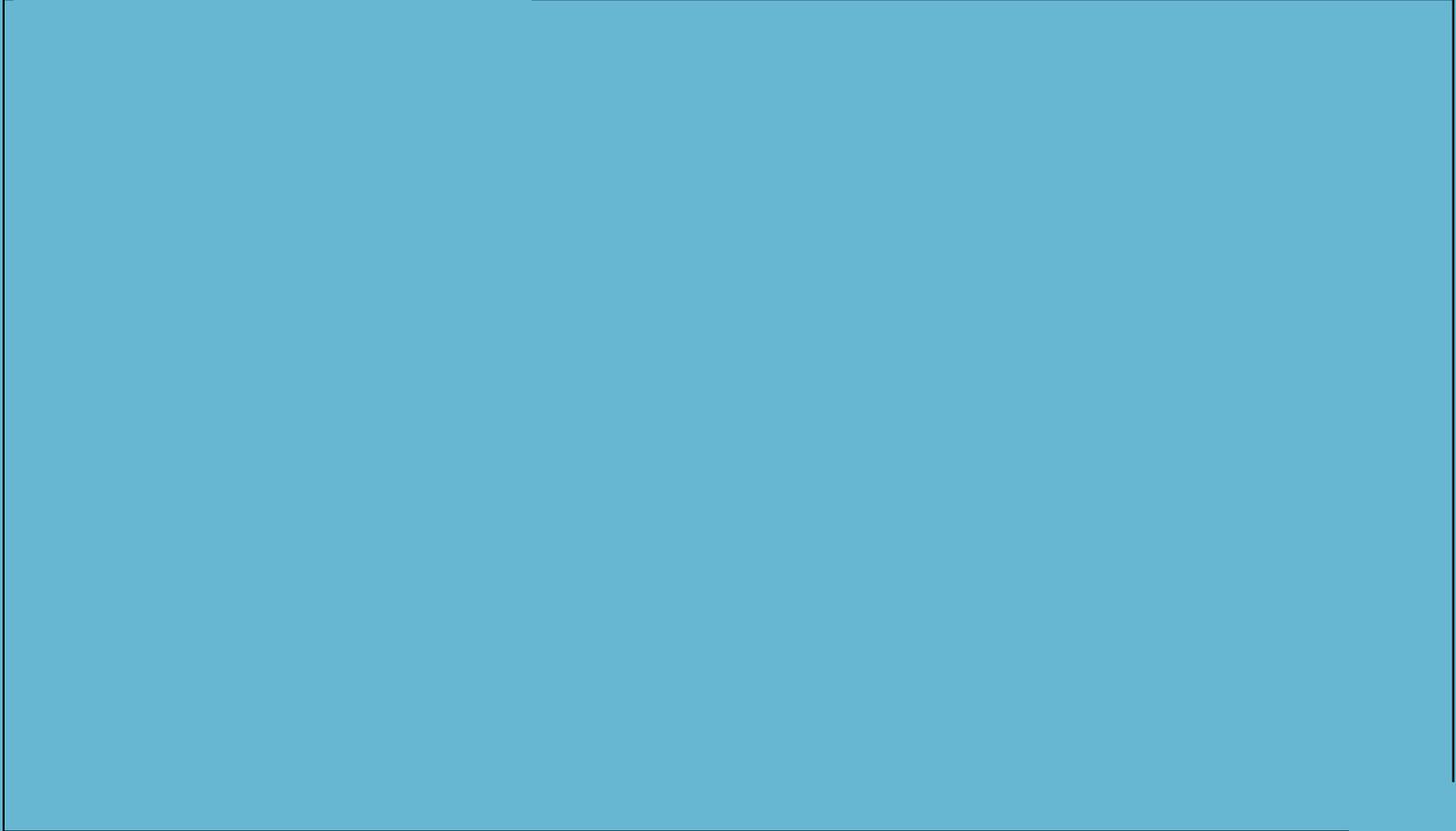
 Das Bild kann zurzeit nicht angezeigt werden.

“On Clark, pedestrians account for 49% of street users, bicycles 32%, while vehicles are just 19% of road-users.”



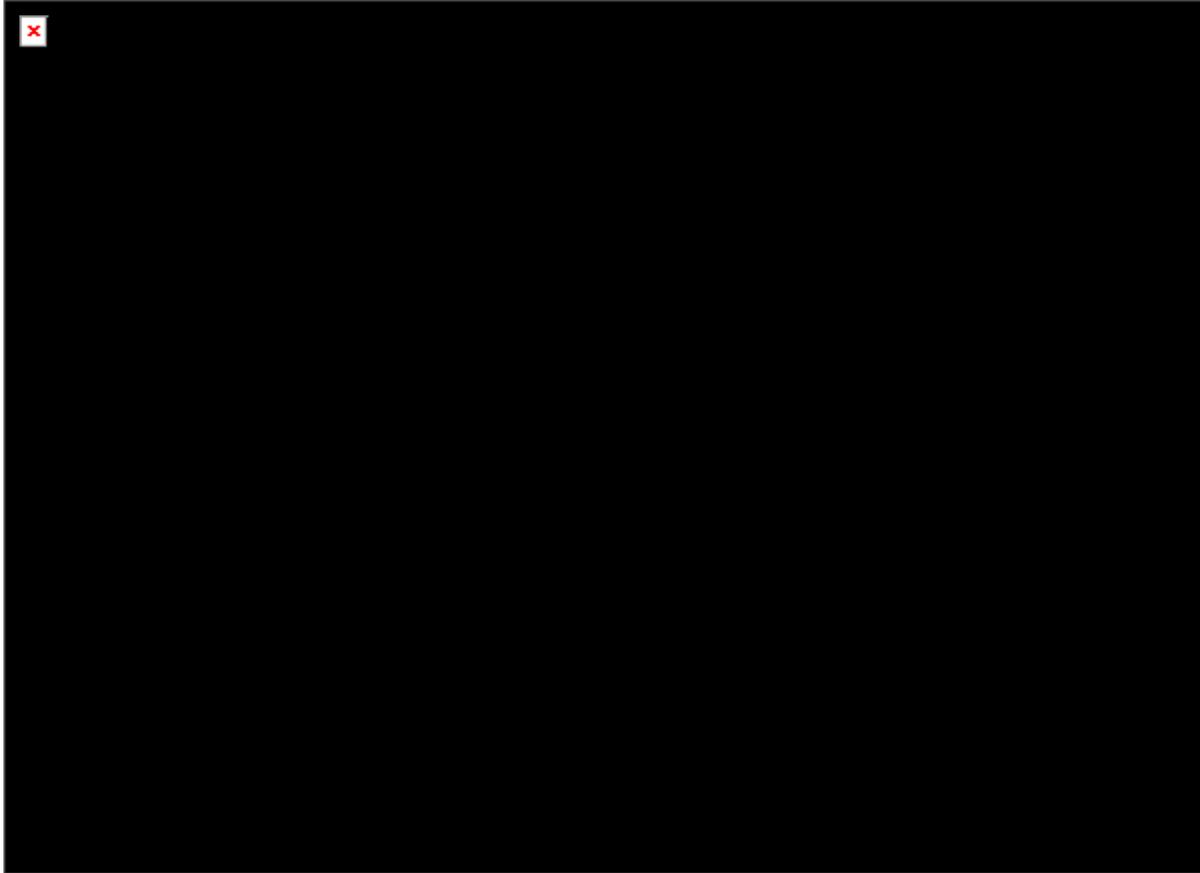
— Then, what happened?

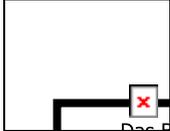
— The 'Réseau Express Vélo' (REV) in Montreal



Transforming St. Denis street

1 in 4 storefronts are currently vacant





Das Bild kann zurzeit nicht

We see in studies in the case of arterial commercial streets, when there is cycling infrastructure that is interesting, safe and attractive, it is good for business.

Valérie Plante, Mayor of Montréal

Das Bild kann zurzeit nicht

Das Bild kann zurzeit nicht angezeigt werden.



Das Bild kann zurzeit nicht angezeigt werden.

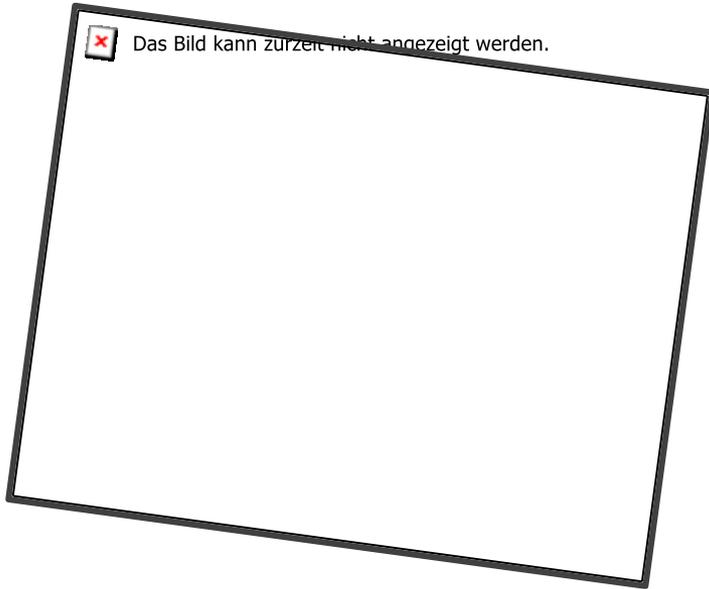


Das Bild kann zurzeit nicht angezeigt werden.



Das Bild kann zurzeit nicht angezeigt werden.

Key data points to inform cycling local cycling policies



OMG!

“On Berri Street, an important north-south axis, pedestrians and cyclists account for nearly two-thirds of road users.”

Precious data!

“On Colonial... just 20% of road users are motor vehicles, yet 67% of the street space is dedicated to this mode.”

Doing a lot with less



A replicable methodology to estimate mode-share across a neighborhood

More data is an outcome multiplier

Be strategic with messaging & communicating data



Cyclists Today

499



Thank you.

Jean-Francois Rheault
jfr@eco-counter.com

Matt Ainsey
mai@eco-counter.com

Barrett Hedges
bhe@eco-counter.com

