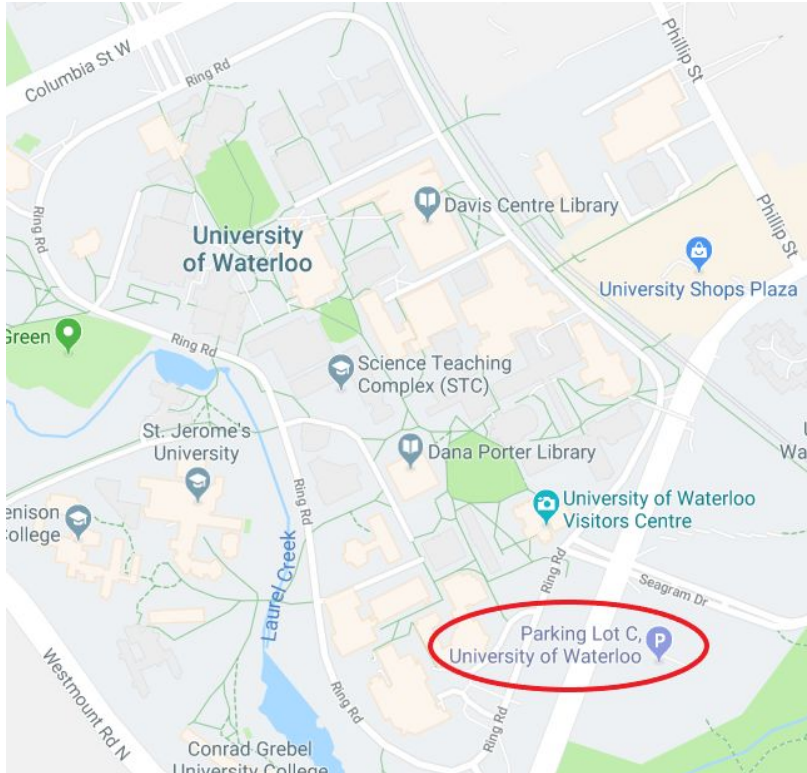# Parking Lot C: A Case Study

Michael Samborski

# Parking Lot C



Located across University Ave off Seagram Road

Both pay-and-display and parking permits

Valid for students, staff, and visitors

Managed by UW Parking Services

Northern corner goes to the university

# Pay and Display: The Proper Way

The kind of lot that has no gate and a meter than you display on your dash

1. Find a parking spot
2. Park your car
3. Walk to the meter
4. Get a ticket
5. Walk back to car
6. Place ticket in car
7. Leave the car

# The Problems I Saw



Problem 1: Cars who were going to park closer to the northern corner would stop at the meter on the way in the lane

Problem 2: Cars leaving early had no use for a parking pass that lasts until 3 am and would pass them off to a car waiting at the meter

# Parking Services Requirements

Every car pays $5 to park

User can pay with WATCard, credit card, or coins

Parking inspector can determine who has paid at any car

There is never a line of cars for entrance

No car ever block the lane

# Parker Requirements

Walk as little as possible

Be able to pay with WATCard, credit card, or coins

Be able to see the current capacity of Parking Lot C

Park as close as possible to the North corner of the lot

# A Relic of a Former System for Parking Lot C



Gate system where one car went through at a time

Satisfied:

-Park as close as possible
-Walk as little as possible
-Everyone pays $5, except tailgaters
-Parking enforcement not needed

Unfortunately, slow and caused backup

# The Current System for Parking Lot C



2 parking meters, circled in red, for 25,000 m²

Red line, from closest meter to closest spot to campus, is 110m

Average walking speed is 80 metres/minute

With time to walk back and forth from the meter and use the meter, you just lost your favourite lecture seat

# Proposed System

City of Toronto uses an app based system to supplement meters

You register license plates to your account

Each lot and street meter have a location number

To park, choose which license plate to park with, enter the location number you are parking in, and choose how long to park for all in the app

If you are running late to get back to your car, you can extend the time in the app

# Enforcement of Proposed System

Manual lookup on a handheld device an option

License Plate Recognition(LPR) either on handheld device or mounted to a vehicle

Traditional tickets or automatic ticket mailing

Vehicle mounting plus automatic ticket mailing would not require enforcement officer to leave his or her car

# Does this meet the requirements?

Parkers could start their session from the car or on their walk to campus

No handoffs for still valid tickets

There would be no traffic jam as you just need to find a spot

Parking enforcement officers would be able to tell who has a valid ticket at the car

# Does this meet the requirements?

Pay by credit card, or WATCard

Maintain current meters for coin payment, and for users that do not wish to use a phone and credit card for parking payment

Current capacity would be as accurate as it currently is

# Why Did The Current System Get Implemented?

The current pay and display system was implemented around 10 years ago

Requirements engineering might have been cut off

Cost benefit analysis might have shown not worth a potentially more expensive system

Payment and/or enforcement system might not have been commonly available

User adoption might have been estimated to be too low for feasibility

# Conclusion

Other universities are starting to adopt some form of enforcement system that is 100% LPR based (ex. UWO, UVic, TrentU)

Whether those systems be with an app or ticket machines that require a license plate, change is coming.

Parking Services is aware of and in contact with providers of such services

Parking Services believes, based on user trends discussed at industry conferences, that the user base as a whole is still better served by the current system

Estimate 5-10 years