Conflict Analysis for Complete Streets

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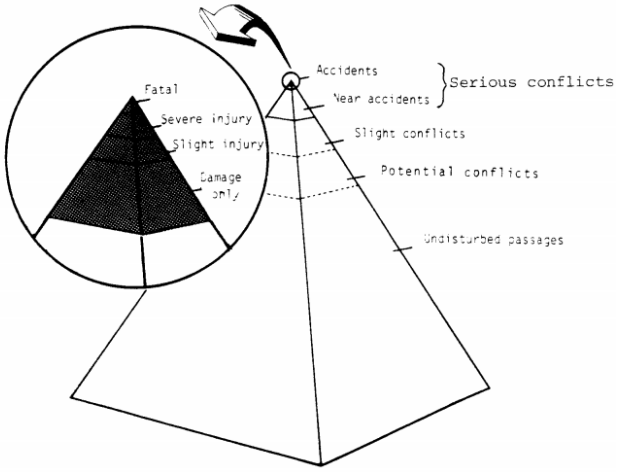
Why conflict analysis for complete streets?

- Collisions…
  - Not always reported
  - Takes long time to collect data
  - Need to wait for collisions to happen



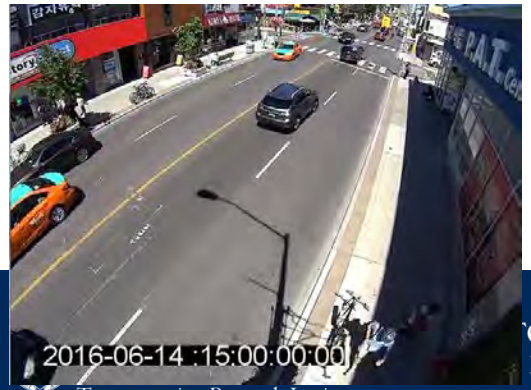
The “figure one” of traffic conflict techniques (Hyden, 1987)

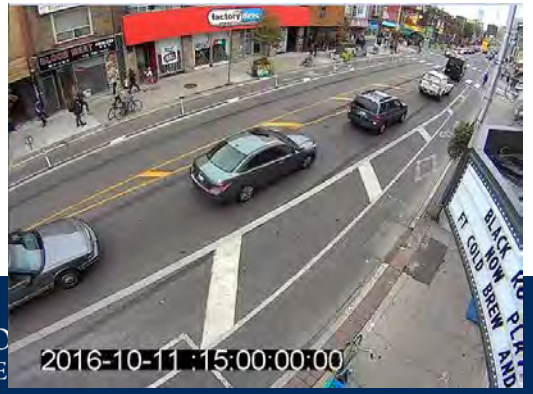
- Conflict analysis…
  - Relate to events that occur more frequently than collisions
  - Proactively find source of safety issues
  - But, sometimes difficult to apply standard techniques to complete streets
  - Also, slow to implement, unless automated

Monitoring locations

Bloor Street between Bedford Road and Devonshire Street

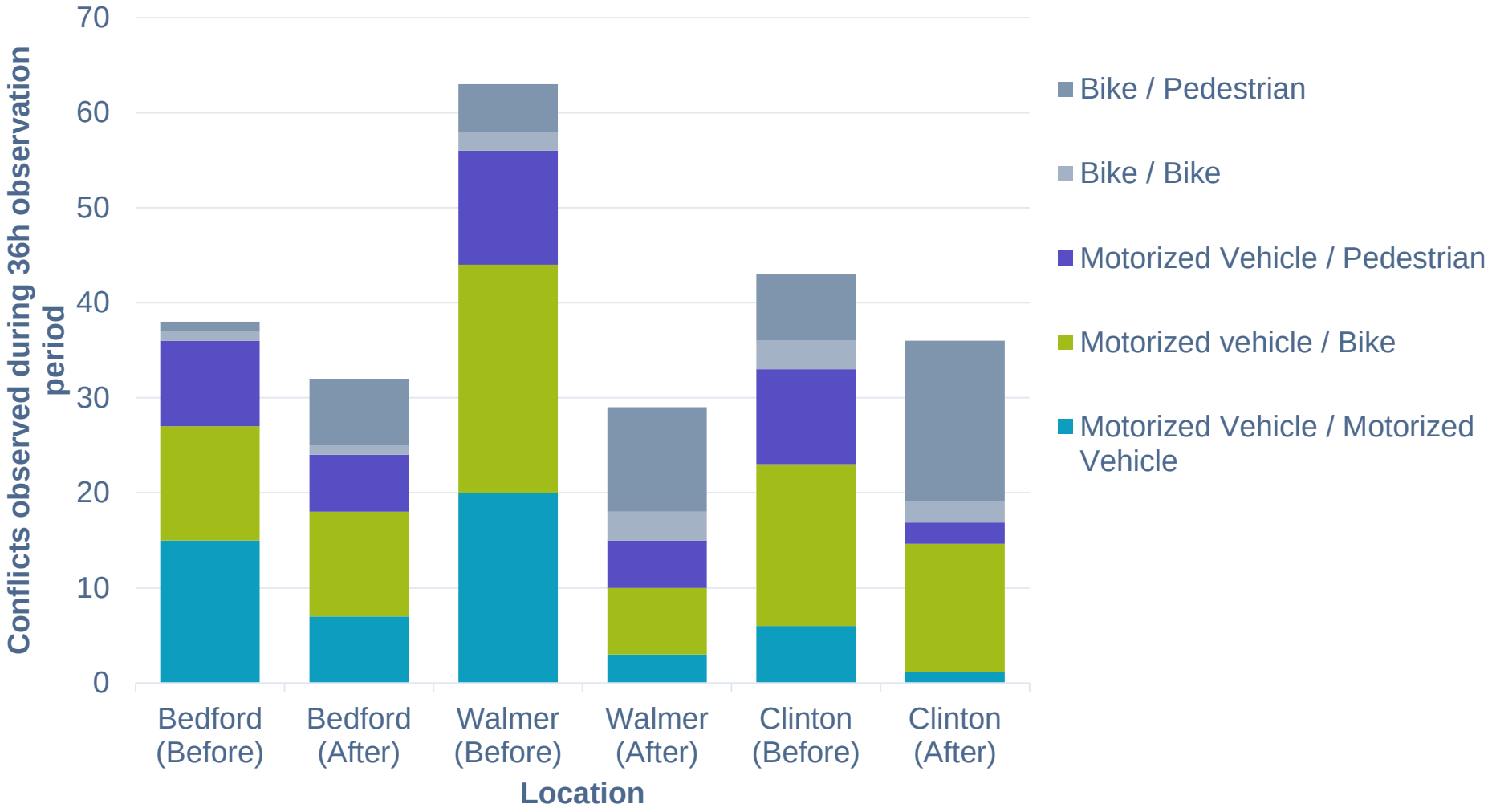
Bloor Street between Walmer Road and Sussex Mews





Bloor Street between Clinton Street and Manning Street

Conflicts: before and after



Next steps: machine learning

- Status quo:
  - Indicator thresholds not appropriate for all modes or movements
- Machine learning:
  - Can consider many explanatory variables
  - Can take into account vulnerability and maneuverability of different modes

Conclusions

- Conflict analysis can be very useful in getting feedback on the sources of dangerous behaviour on a complete street

- Machine learning is a promising way of identifying conflicts automatically on complete streets