# Message-Passing Thought Exercise

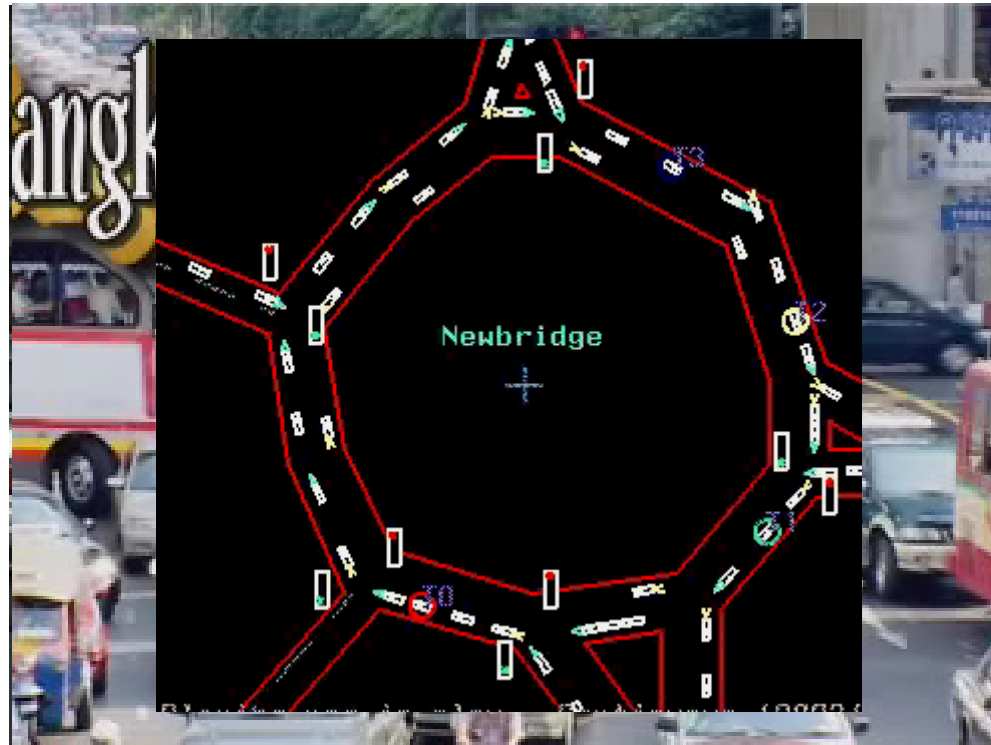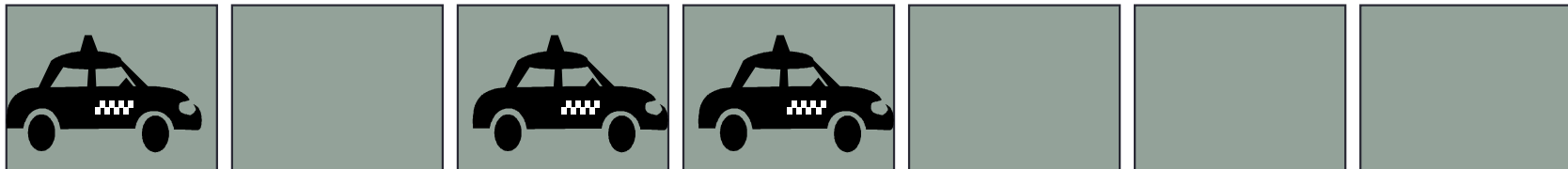## Traffic Modelling

# Traffic Flow

- we want to predict traffic flow

    – to look for effects such as congestion

- build a computer model

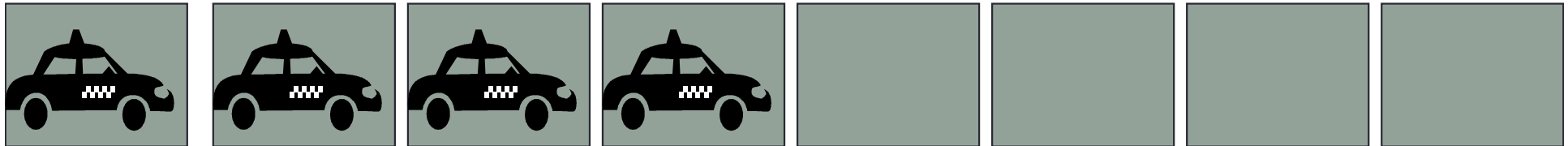# Simple Traffic Model

- divide road into a series of cells

  – either occupied or unoccupied

- perform a number of steps

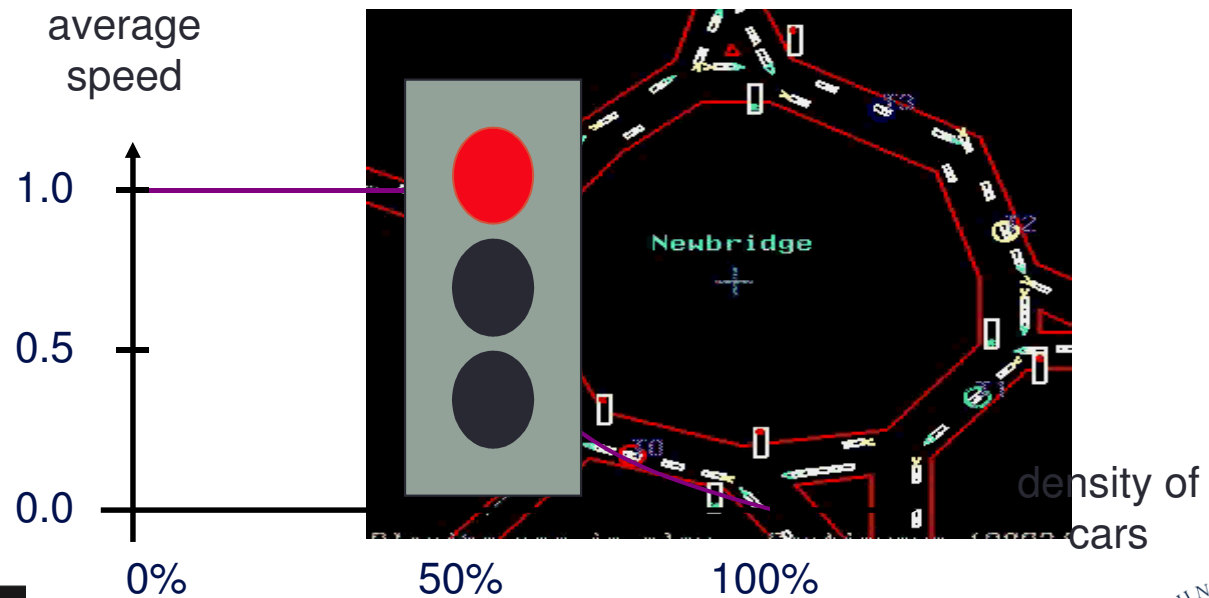  – each step, cars move forward if space ahead is empty

## could do this by moving pawns on a chess board

# traffic behaviour

- model predicts a number of interesting features

- traffic lights



- congestion

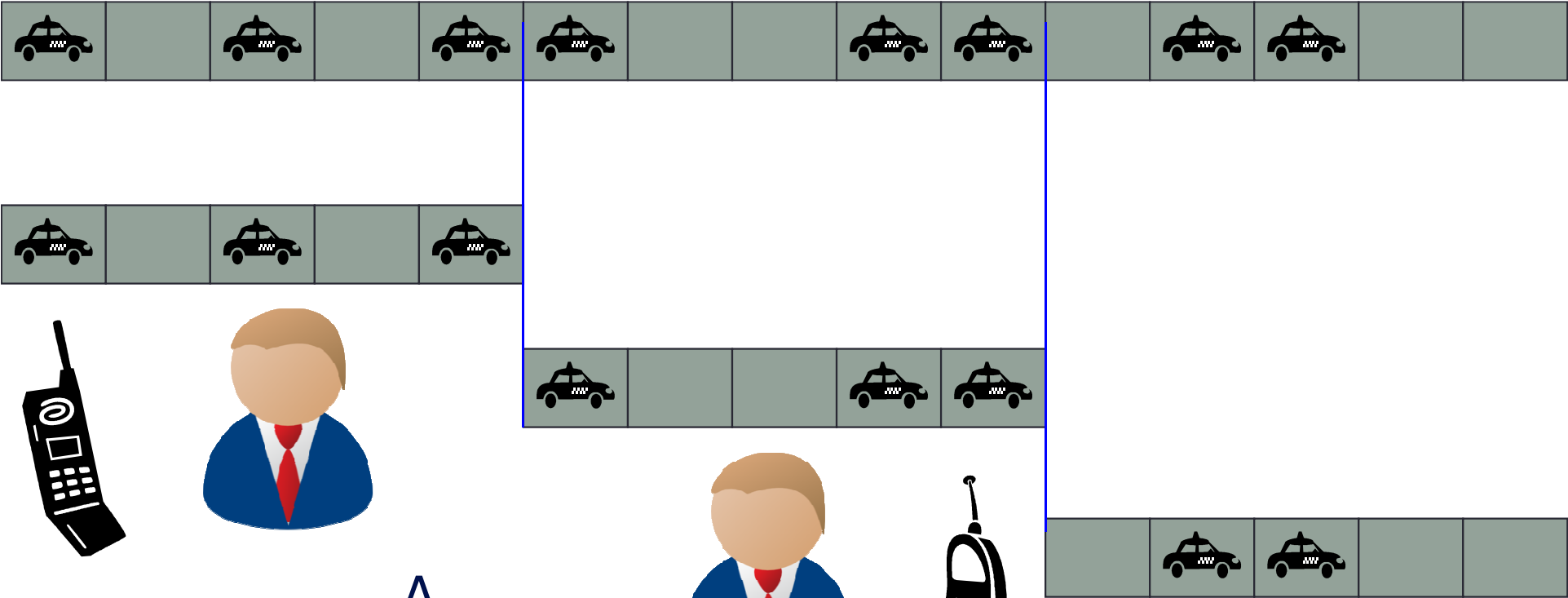- more complicated models are used in practice

# how fast can we run the model?

- measure speed in Car Operations Per second
  - how many COPs?
- around 2 COPs
- but what about three people?
  - can they do six COPs?

# a parallel traffic model