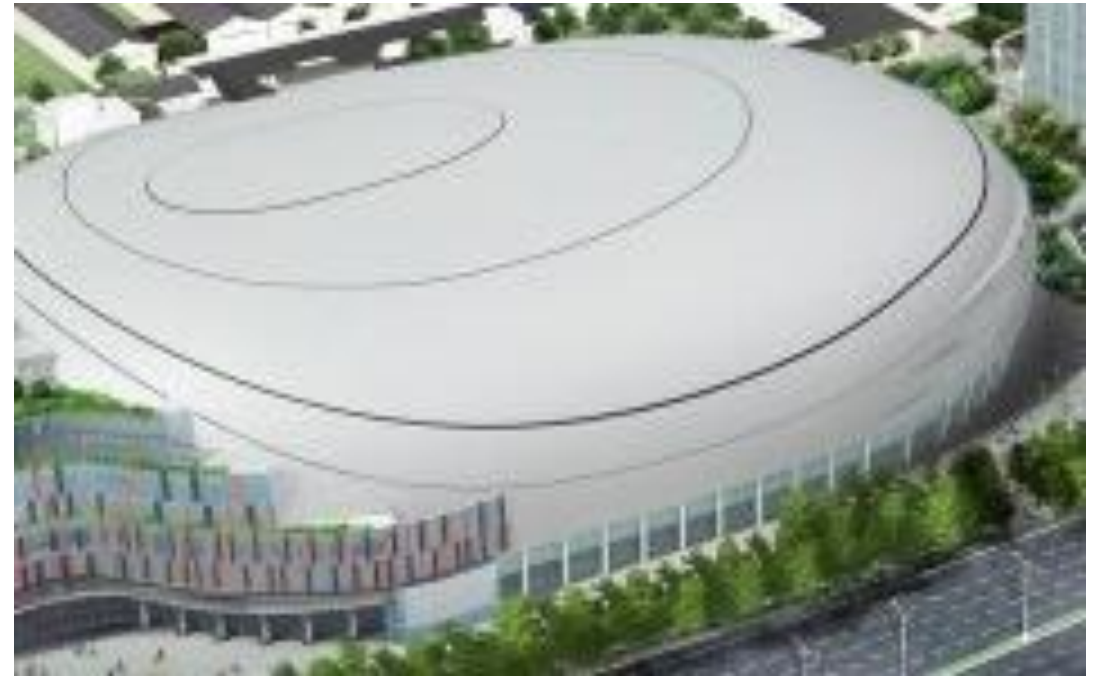


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# Traffic Simulation & Crowd Evacuation at Taipei Dome

- B09208038
- 地理三 劉正悅
- Code on <https://github.com/buffett0323/Traffic-Simulation-Crowd-Evacuation-at-Taipei-Dome.git>



# Contents

1. Motivation
2. Model Introduction
3. Implementation
4. Future Work
5. Conclusion



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# 1. Motivation

- 梨泰院事件
- 大型活動主辦





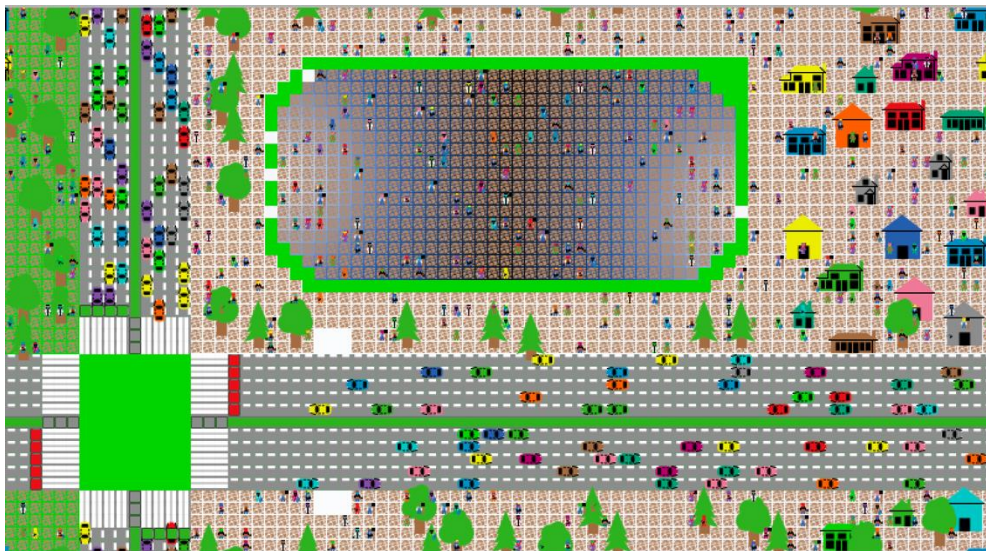
```

✓ 秒 ▶ # write it into asc file by hand
with open("geo_sim_final33.asc", "w") as f:

    # initial data
    f.writelines("ncols      80\n")
    f.writelines("nrows      44\n")
    f.writelines("xllcorner  0\n")
    f.writelines("yllcorner  0\n")
    f.writelines("cellsize   1\n")
    f.writelines("NODATA_value -9999\n")

    # input data
    for line in new_np:
        for n in line:
            # put the value into the asc file
            tmp = str(n) + " "
            f.writelines(tmp)
        # new line
        f.writelines("\n")

```



## 2. Model Introduction

- Python 撰寫 .asc file 的背景數據
- 使用 Euclidean Distance 當作 Cost 的依據
- 並用 netlogo 讀取得到 cost map
- Patches 手刻地圖

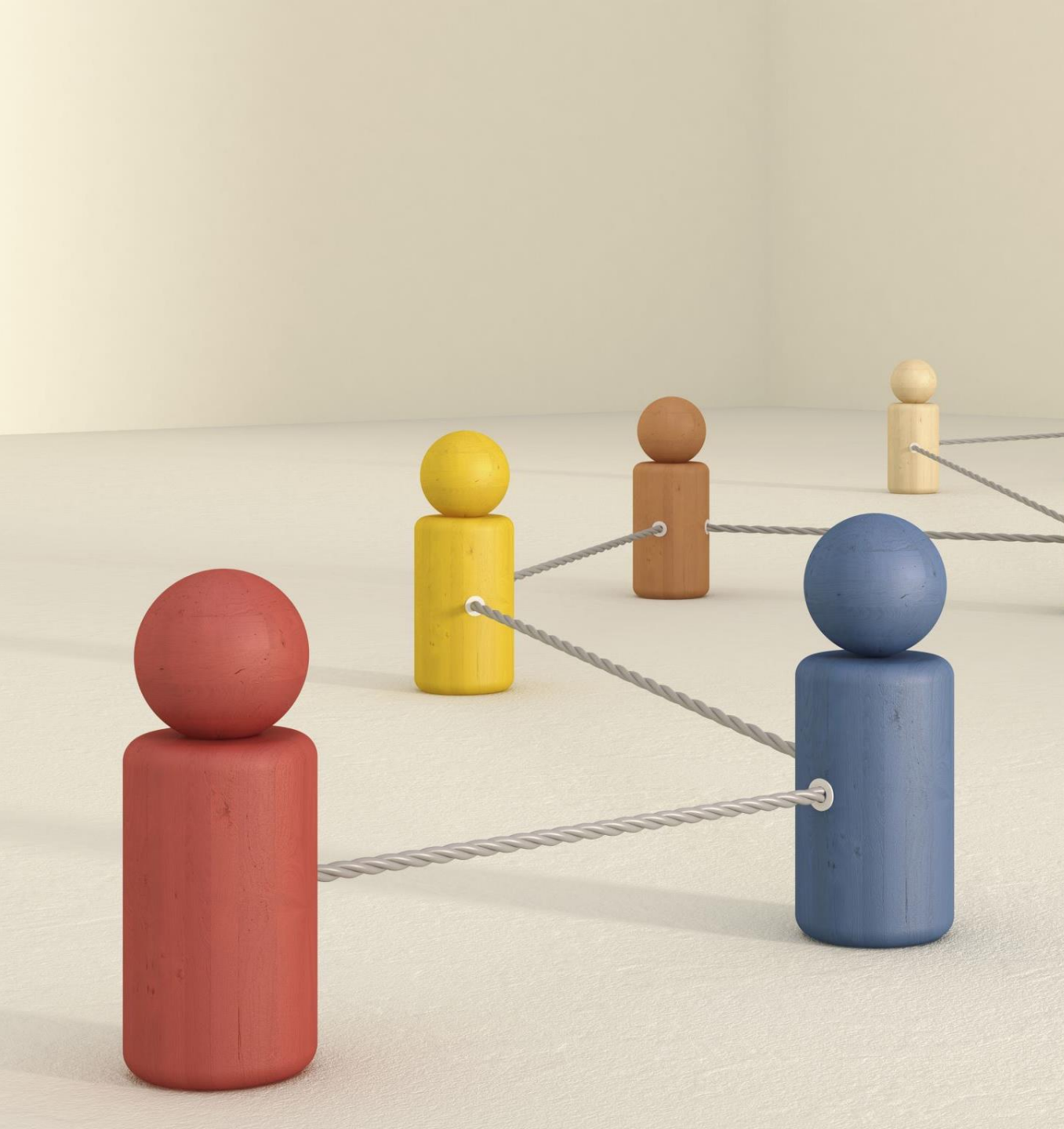


---

## Important & Practical settings of the model

- Cars
  1. 道路安全
  2. 可左右轉車
  3. 客製化駕駛的Patience
  4. Change New Lane

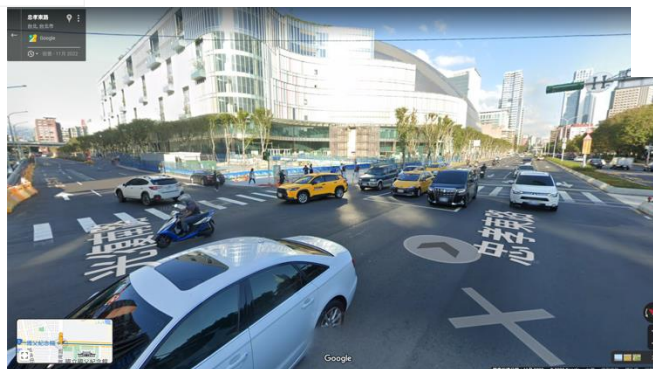




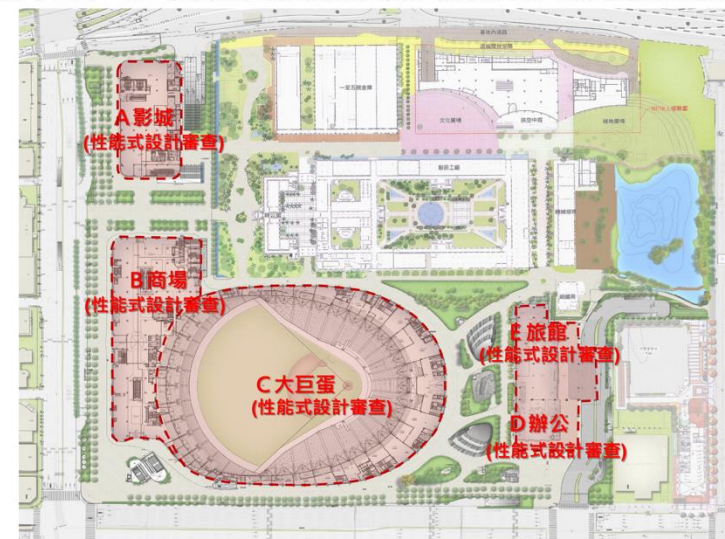
---

## Important & Practical settings of the model

- People
  1. 危機發生時的行為改變
  2. 從眾的行為學習
  3. 客製化職業個性
  4. 過馬路安全
  5. 最佳化問題



103年10月、104年5月提送防火避難性能認可通知書第二次變更設計範圍



B・施工安全管理

B2

Reference:

- 台北市政府-台北大巨蛋公告安全報告書
- 台北市大巨蛋公開公共安全策略

# Supporting information



Setup S Go G

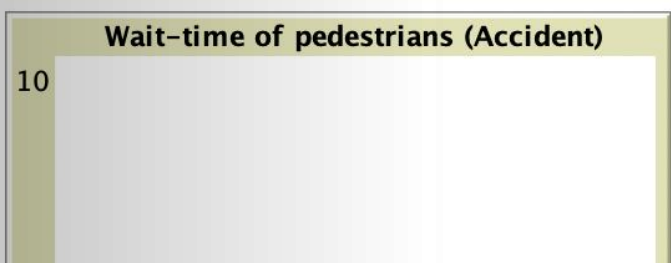
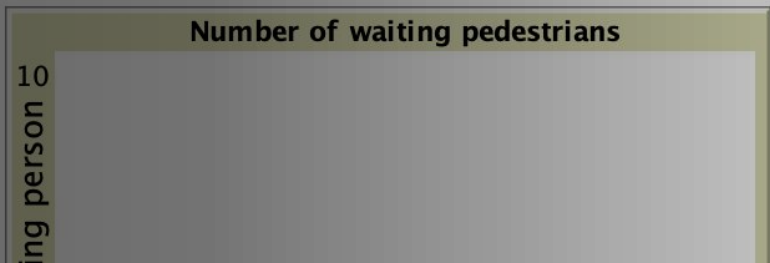
num-of-people 465  
num-of-cars 106  
lights-interval 6  
acceleration 0.242  
deceleration 0.057  
speed-limit 61  
prob-of-turning 100  
time-to-crossing 1000  
basic-politeness 50

On Off turning-left

On Off accident-happen?

On Off check-cost?

# Implementation





# Future work & Conclusion

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應用賽局理論  
的概念套入

探討、擬定增  
設出口疏散的  
各項策略

增加樓層的可  
預測性