Pedestrian Dynamics and Urban Resilience

Mingshu Wang

ITC-GIP

mingshu.wang@utwente.nl

@Twente Resilience Meeting & Drinks, March 10, 2020

Measuring Pedestrian Dynamics: Doing it the right way

- While understanding pedestrian behavior is essential for many aspects of urban design, planning, and management, monitoring of pedestrians often intrudes a person's privacy. Therefore, we develop a framework with novel technological solutions toward measuring pedestrian dynamics to answer urban-related questions in a privacy-preserving and socially acceptable way.
- <u>Research Question</u>: What are the questions regarding urban dynamics that rely on measured pedestrian dynamics, for which we can show that privacy of an individual pedestrian can be preserved in a legally and socially acceptable manner and through technologically sound and explainable schemes?

https://www.nwo.nl/en/research-and-results/research-projects/i/33/35333.html

Measuring Pedestrian Dynamics: Doing it the right way

- 1) Identify a set of interesting questions regarding urban design, planning, and management.
- 2) Identify which specific information from pedestrian dynamics is needed to answer those questions.
- 3) Devise a method for capturing the relevant data of those dynamics and show that subsequent analysis would lead to appropriate answers.
- 4) Formulate precisely the intentions for which the data has been collected and make clear that the data set fits those intentions and no other ones.

Pedestrian Dynamics and Urban Resilience

- 1) What are questions regarding urban design, planning, and management related to urban resilience?
- 2) Which specific information from pedestrian dynamics is needed to answer these questions?

PhD Position Advertisement (Due by March 15)

- <u>https://www.utwente.nl/en/organization/careers/!/1099452/phd-position-measuring-pedestrian-dynamics-fulltime</u>
- <u>https://www.academictransfer.com/en/289950/phd-position-measuring-pedestrian-dynamics-fulltime/</u>