Simulation of Pedestrian Movement Outside Football Stadium

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1 Problem Description

2 Literature review

3 Conceptual model

3.1 Inputs

In order to simulate the pedestrian flow outside Georgia Tech's Bobby Dodd Stadium, we need some real physical data about the stadium, pedestrians and street configuration around the stadium. Also, variables like pedestrians' speed, space needed by people with different body sizes should vary and follow some distribution.

Velocity Regarding the difference of age, gender, and so on, pedestrian will not have a uniform velocity. Follow reference ** and our owe daily experience, we propose that pedestrians' velocity is described by a Gaussian distribution of form

$$v = \exp\{\frac{(x-1.34)^2}{0.26^2}\} \tag{1}$$

In cellular automata, this means that some pedestrian may move more than one

Space of each pedestrian We know that different people may

3.2 Outputs

3.3 simulation components and rules

Map construction

Floor model

Pedestrian model

update strategy