

Bachelor thesis evaluation  
“Predictive Temporal Models for Effective Social  
Distancing during Pandemic”

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The goal of the thesis was to evaluate methods capable of reducing the number of social contacts during pandemic situations.

The author of the thesis took a brief review of the state of the art methods used to counter the COVID-19 crisis and then decided to evaluate methods that forecast the density of people at locations that are required to be visited. Thus the work aimed to verify if a time-of-a-visit recommendation system can decrease the number of social contacts during necessary errands such as shopping. The author decided to evaluate a set of methods used in social robotics, where the robots have to infer the number of people at different locations from sparse and irregular data. For evaluation, she chose to use a dataset gathered during the peak of the pandemics in Bangkok, Thailand. Her evaluation methodology assesses the methods' efficiency by comparing the number of people encountered by a person who follows the forecasting method to those who behave in a standard way.

While the thesis is well structured and the descriptions provide fundamental insight into the methods used and the evaluations performed, the details are rather shallow to understand the methods fully. My main criticism would be that the experiments do not fully exploit the advantages of AAB and BAM methods compared to a trivial forecast by a previous-day minimum. In particular, the student did not investigate the performance of the methods with different parameter settings, their resilience to missing data, irregular measurements etc. Thus, the evaluation is a bit vague, and the thesis somewhat lacks a clear conclusion. On the other hand, the student worked methodically with steady progress and the set guidelines, and she regularly consulted her work.

C - good.

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