

Participatory Sensing and Information Dynamics in Human Complex Networks

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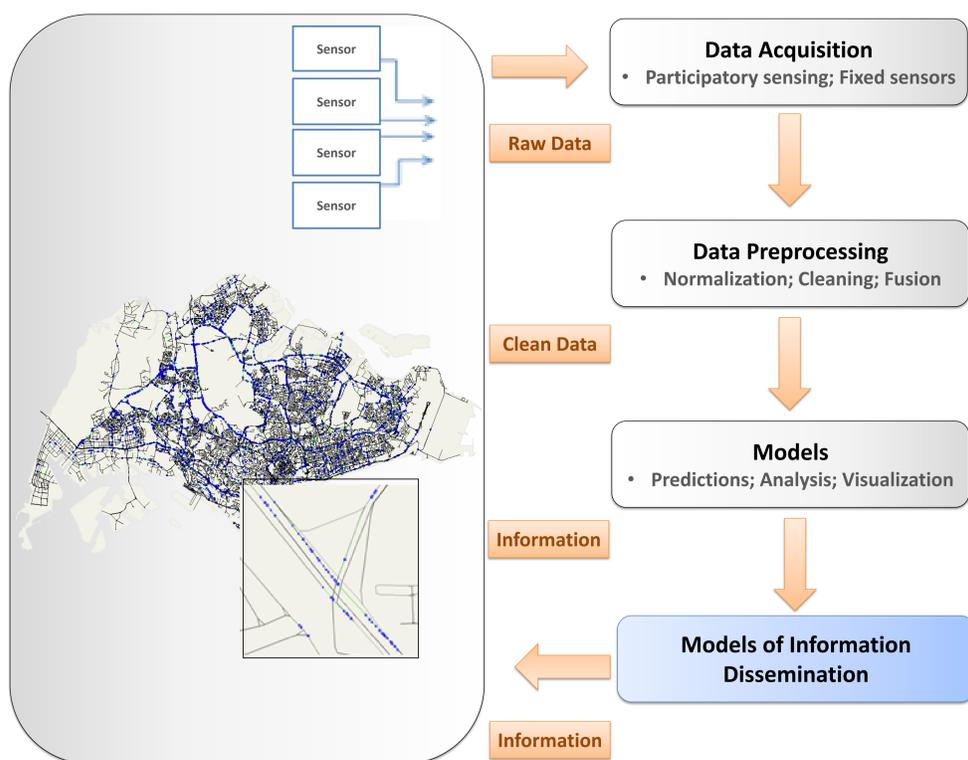
Challenge

The research focus is on investigating the effect of information propagated into human complex systems and whether information can be used to as a steering tool to improve the system's performance.

Content

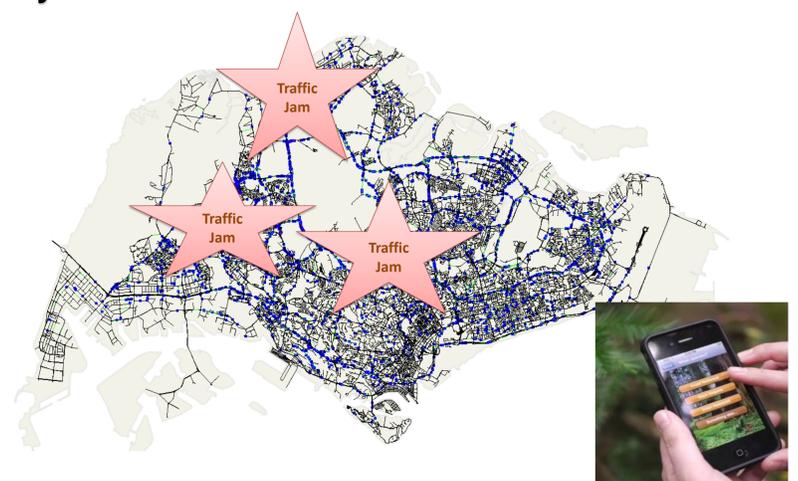
The availability of new real time traffic information sources and communication possibilities has increased in the recent years with a broader distribution of personal smart devices. At the same time, traffic participants provide data through participatory sensing devices.

Large amounts of data that are processed and the information is made available real time to traffic participants through models of information dissemination.

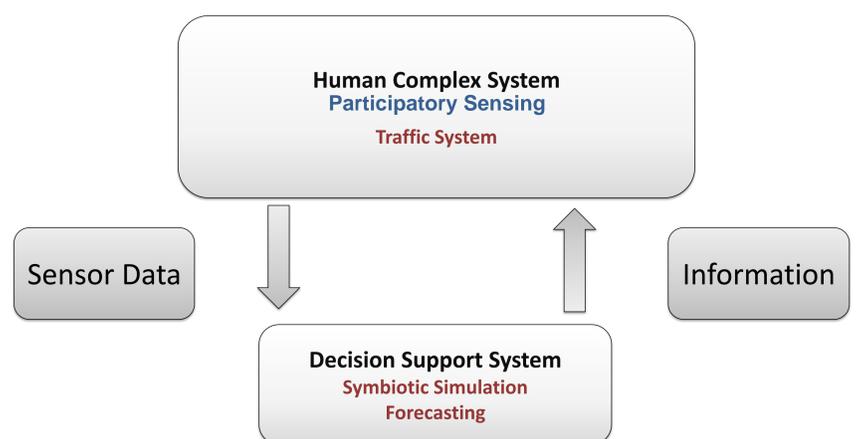


Participatory Sensing Agent Based Simulation for a transportation system with models of information dissemination.

Knowing details of the possible problems in advance modifies people's behaviours and this possibly affects the entire human complex system



Transportation systems are human complex systems. The physical network layer (for example roads or traffic participants) coexists with the informational layer maintained by technological devices and personal smart devices.



Research Questions

What is the effect of real time information dissemination through participatory sensing on human complex systems?

Can we use real time information to improve performance in human complex systems?

Conclusion

This poster presents an overview of a participatory sensing agent based simulation with models of information dissemination. The information disseminated into a transportation system to traffic participants has an effect on the entire system. In certain circumstances, using models of information dissemination can be a tool for steering the transportation system towards a better performance