## The role of the MATSim model in assessing Paratransit performance in a data-scarcity context.

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The flexible nature of the MATSim model extended its capabilities to simulate a complex mobility scenario. However, the Model requires comprehensive sizeable mobility data that accurately describe population movement, networks, and public transport.

In developing countries, public transport fails to meet the upward demand for mobility, giving paratransit room to immerse the mobility landscape. Paratransit is a self-organised means of transport that does not comply with a fixed route or operation schedule.

Due to Paratransit's complex nature, it needs to be studied more in urban mobility literature. Therefore, the researchers aim to study the Paratransit in Alexandria, Egypt, as a data-scarcity city via a Multi-Agent Simulation model. In particular, defining the possible stopover for a paratransit route.

Keywords: MATSim, Paratransit, mobility data.

## References

Andreas, N. (2014). A paratransit-inspired evolutionary process for public transit network design.

MATSim.org. (2023). MATSim's Scenario Gallery. MATSim.Org. https://www.matsim.org/gallery/

Merriam-Webster. (2023, February 3). *Paratransit Definition & Meaning - Merriam-Webster*. Merriam-Webster. https://www.merriam-webster.com/dictionary/paratransit

Silcock, D. T. (1981). Urban paratransit in the developing world: Foreign summaries. *Transport Reviews*, 1(2), 151–168. https://doi.org/10.1080/01441648108716456

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