

Human mobility analysis and simulation with Python

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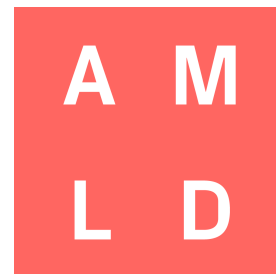
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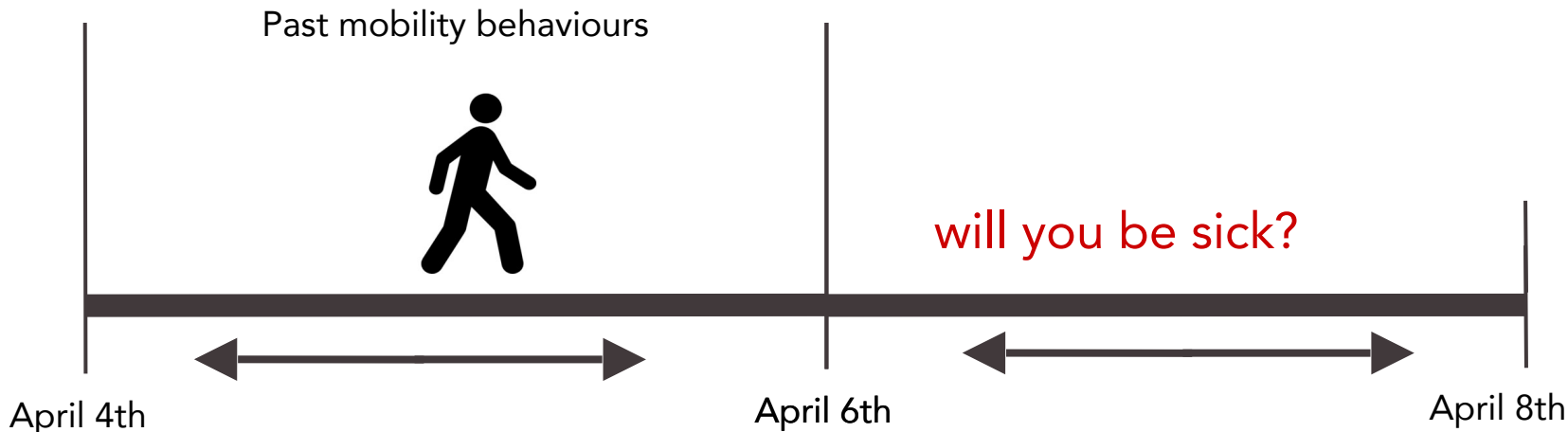
Gianni Barlacchi

@GianniBarlacchi



Predict flu-like symptoms

Individual mobility behaviours is used to predict the future presence of flu-like symptoms (e.g. cold, fever and cough).



Are you getting sick? Predicting influenza-like symptoms using human mobility behaviors (Barlacchi et al.)

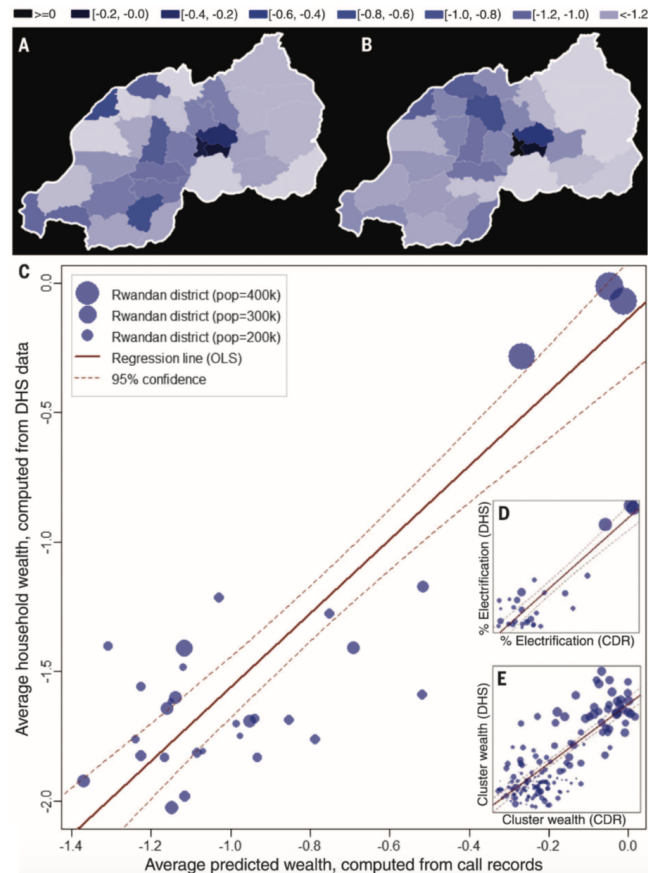
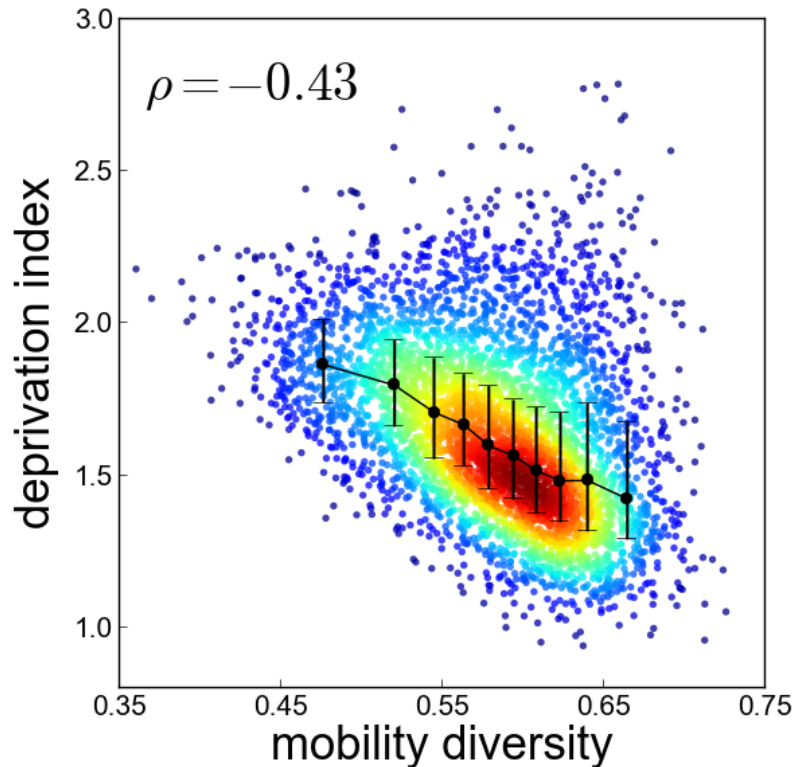
Monitoring of poverty

In resource-constrained environments censuses and household surveys are rare and difficult to obtain.

- Individual past mobile phone behaviour, including mobility, can be used to infer his or her socioeconomic status.
- The predicted attributes of millions of individuals are used to reconstruct the distribution of wealth of an entire nation

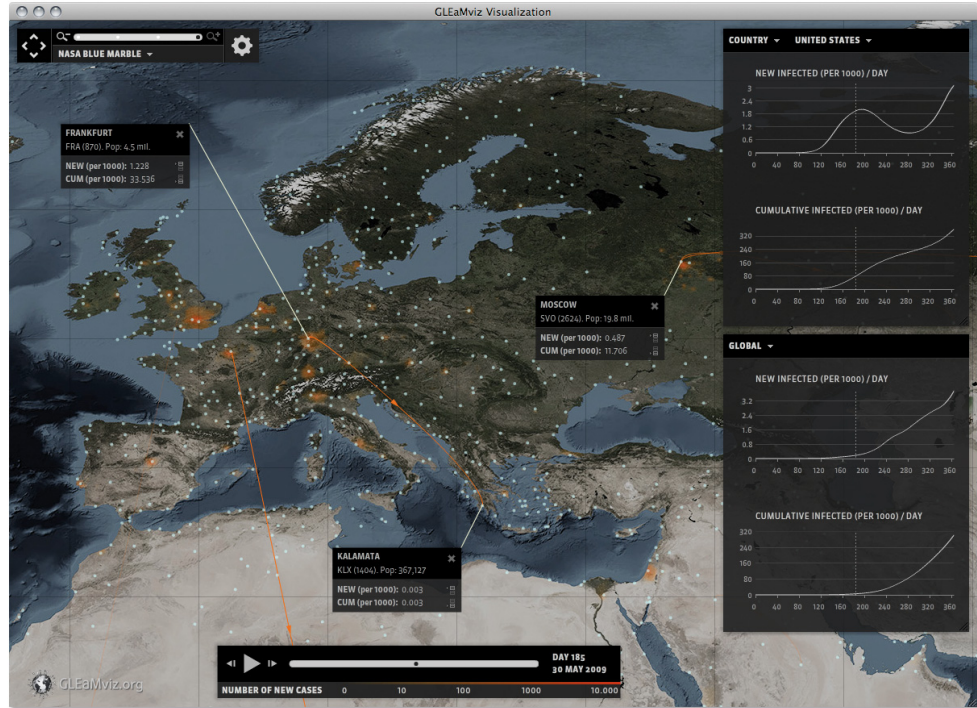
Predicting poverty and wealth from mobile phone metadata
(Blumenstock et al.)

Mobility and government data



An analytical framework to nowcast well-being with mobile phone data (Pappalardo et al.)

Forecasting flu



The GLEaMViz computational tool, a publicly software to explore realistic epidemic spreading scenarios at the global scale.
(Van den Broek W. et al.)



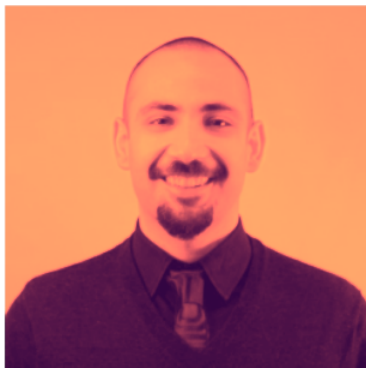
Current developments

predictive models

visualization module

map matching

anonymization techniques



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<https://github.com/scikit-mobility/>

How to contribute?

contact us

open an issue

make a pull request

Thank you!

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