Open Access Transport Models

From collaborative code to citizen science

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TRB, 2021-01-21 (updated: 2021-07-01) Reproducible source code: github.com/Robinlovelace/presentations

The problem



Source: 'Inside the black box' report

- Transport models were designed to support growth in car ownership and reduce journey times (Boyce and Williams, 2015)
- 21^st^ Century priorities are very different
 - Climate science, air pollution and health force a shift in focus
 - The concepts of 'participatory democracy' and 'citizen science' mean there is a need for collaborative solutions

The solution

New technologies mean that open access transport models are possible



Source: A/B Street, free, open source, gamified transport planning software github.com/dabreegster/abstreet

The paper



Transport Policy

Volume 97, October 2020, Pages 47-54



Open access transport models: A leverage point in sustainable transport planning

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- Transport models represent a leverage point in transport systems
- New paper, Lovelace et al (2020) describes the emergence and possibilities for 'open access models'

Live demo



Get involved

- Support open source solutions indirectly
 - Sign-up to platforms for sharing and collaborating on open source projects, such as https://github.com/
 - Preferentially use, cite and endorse open access and open source solutions
 - Find the open source tool best suited to your needs and communicate constructively with the developers
 - Communicate ways to improve open source solutions, e.g. by commenting on 'issue trackers' on forums such as GitHub
- Download, install and play with open source software
 - R/RStudio, great for data analysis but also interactive visualisation and, increasingly, transport planning workflows
 - Have a play with open access transport tools such as A/B Street and the PCT, which can run on your computer or in the browser

References

Boyce, D.E., Williams, H.C.W.L., 2015. Forecasting Urban Travel: Past, Present and Future. Edward Elgar Publishing.

Beimborn, E., Kennedy, R., 1996. Inside the Blackbox: Making Transportation Models Work for Livable Communities. Citizens for a Better Environment.

Lovelace, R., Parkin, J., Cohen, T., 2020. Open access transport models: A leverage point in sustainable transport planning. Transport Policy 97, 47–54. https://doi.org/10.1016/j.tranpol.2020.06.015

Thanks

Contact me at r. lovelace at leeds ac dot uk (email), @robinlovelace

Check-out links to my work at robinlovelace.net

Thanks to everyone building a open and collaborative communities

Thanks to the University of Leeds and the Institute for Transport Studies