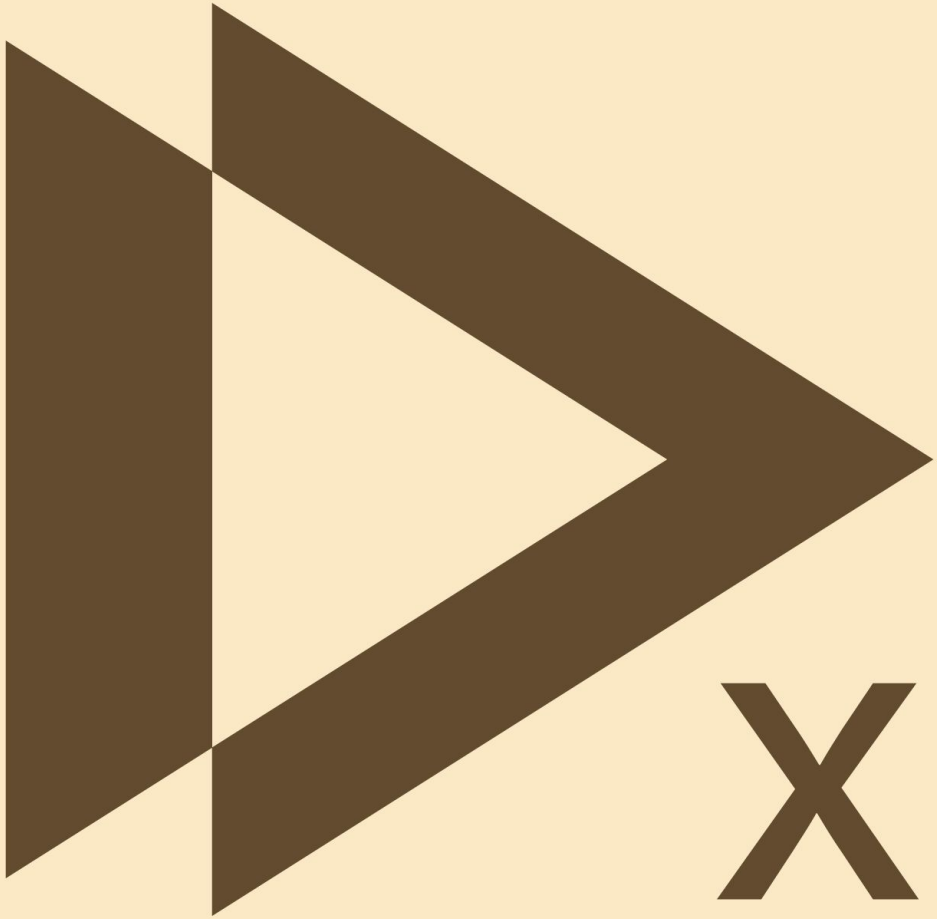

xlr8

MERCEDES BENZ DIGITAL CHALLENGE

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Traffic Congestion: Why is it a big deal?

Congestion costs India

$22 Billion

annually

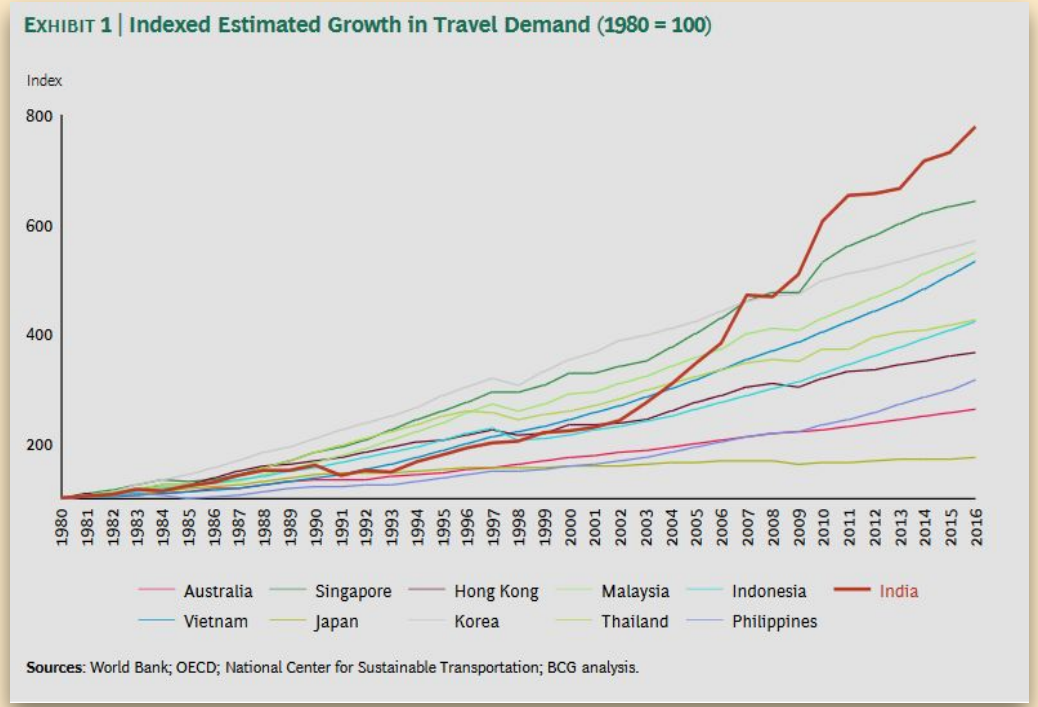
Travellers in metro cities spend

2 hours

more on their daily commute due to traffic

Source: BCG

Factors leading up to Traffic Congestion



% growth in transport demand

IS GREATER THAN

% growth in infrastructure supporting it

- 👉 Migration into metro cities
- 👉 Slow implementation of government policies
- 👉 Increased population density
- 👉 Limited mass transit options
- 👉 Road Narrowing
- 👉 Accident or closed road due to utility work

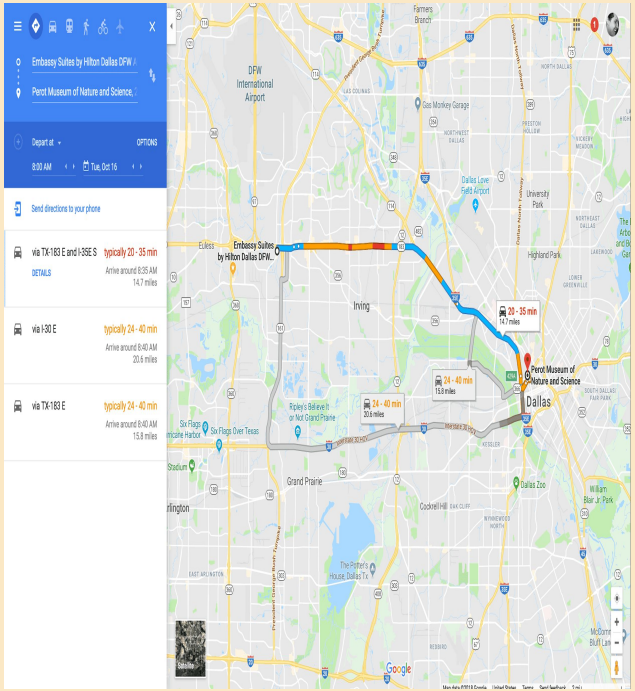
Oh but not to worry, your Google maps will make you avoid congestion, right! Umm, Really?

An estimated **1 billion drivers** use navigation apps world wide for real-time routing

These apps are typically **optimized to keep an individual driver's travel time as short as possible**

Base road maps are used by the apps:

- Roads divided into classes according to the number of vehicles moving through per hour at speeds adjusted to local conditions
- Algorithms identify the best route for you when source and destination are entered
- Travel speeds and locations collected from the user
- Real time re-routing suggestions are offered considering the current traffic **and that remains a significant bottleneck**

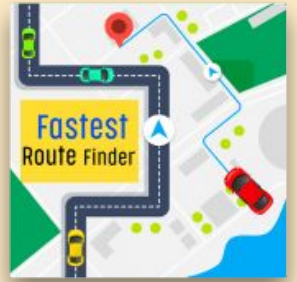


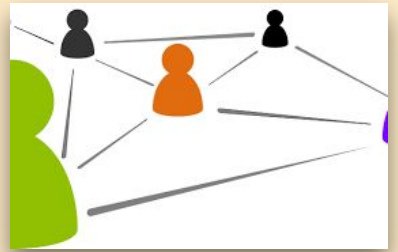
Is your existing navigation app really making the traffic manageable by the fastest route suggestion?

The apps do not account for the **existing infrastructure** or the peculiarities on the road

The Selfish routing problem

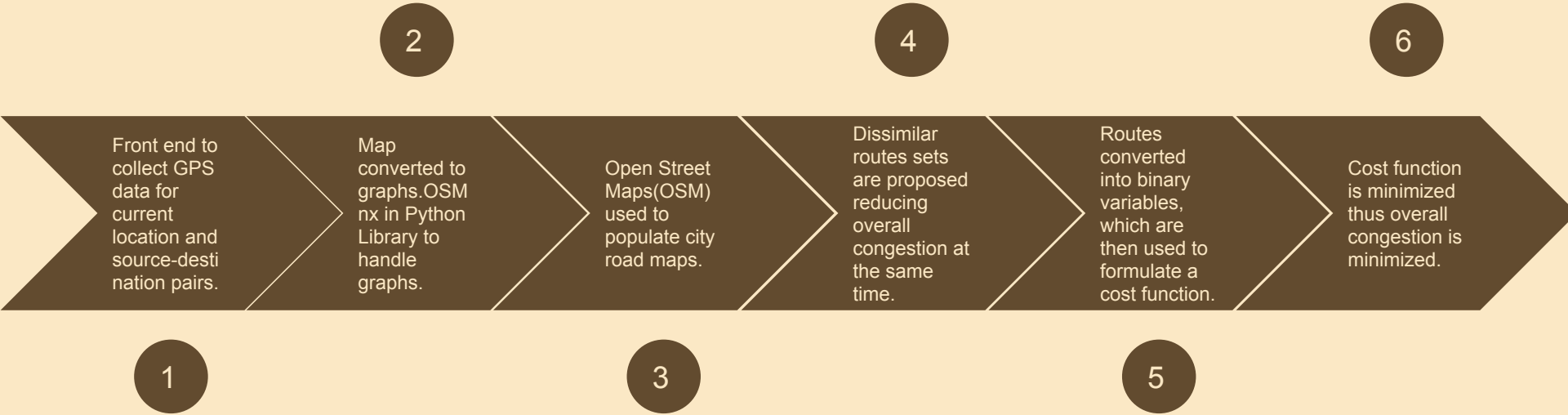
The apps take a selfish view where each vehicle is competing for the fastest route





Decentralized nature of apps- each provider receives data streamed to its servers only from the devices of its users.

How does the xlr8 algorithm work?

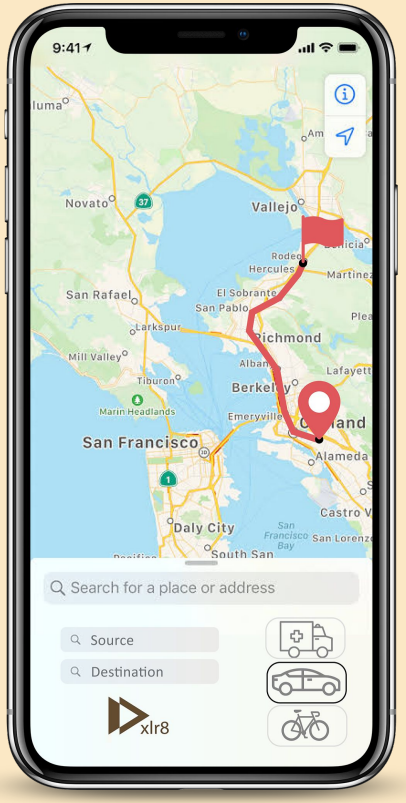


What does our application provide that others cannot?

100 Users enter same source and destination at the same time

Google Maps algorithm considers the prevailing traffic conditions and suggests the same route for users

Our xlr8 algorithm offers a solution to maximize the vehicle flow by routing a subset of cars along alternate routes.



This ensures not all vehicles follow the same route and thus overall congestion is minimized. The SELFISH-ROUTING PROBLEM is thus solved!