



MEET DHAKA

Only 1% of people have cars

**What do we predict will happen
to Dhaka if nothing is done?**



4 pm
**TRAFFIC JAM
IN JAKARTA**
August 2011

**DESIGN CITIES LIKE
YOU GIVE A DAMN**

An initiative of the



DESIGN CHALLENGE

substantially improve the alternatives to driving in Dhaka
in 3 months or less



sexy sidewalks



**critical mass
cycling**







making the invisible visible



the best way to see Dhaka

How?

3 INSIGHTS

1 cities don't innovate as much as they should and when they do, they don't share

2 we can seamlessly build effective glocal (global + local) teams and share knowledge across space and time

3 we can now rapidly prototype physical, digital and mobile designs that address urban scale problems

a) the places that need the help the most at this time – and b) that have a local team that we can work with

1 IDENTIFY THE CITY and the URBAN-SCALE DESIGN CHALLENGE

research, research, research

crowdsource ideas from local constituents

2 BUILD A GLOCAL DESIGN TEAM

1-2 months

IDENTIFY and REFINE THE BEST IDEAS that can be RAPIDLY PROTOTYPED

refine ideas with the help of global experts

3 RAPID PROTOTYPE IN THE CITY

some members of global team to assist in the rapid deployment of new ideas

2-3 weeks

5 DESIGNED CITY LEVERAGES NEW IDEAS TO REBRAND ITSELF AS A CITY THAT IS LEAPFROGGING INTO THE FUTURE

6 OTHER CITIES ADOPT SOME OF THESE NEW EXPERIMENTS

law of unintended consequences

4 BROADCAST EXPERIMENTS TO THE WEB WHERE INVESTORS CAN HELP SCALE THEIR FAVORITE EXPERIMENTS

prototypes, including design files all open-sourced and freely available to any city

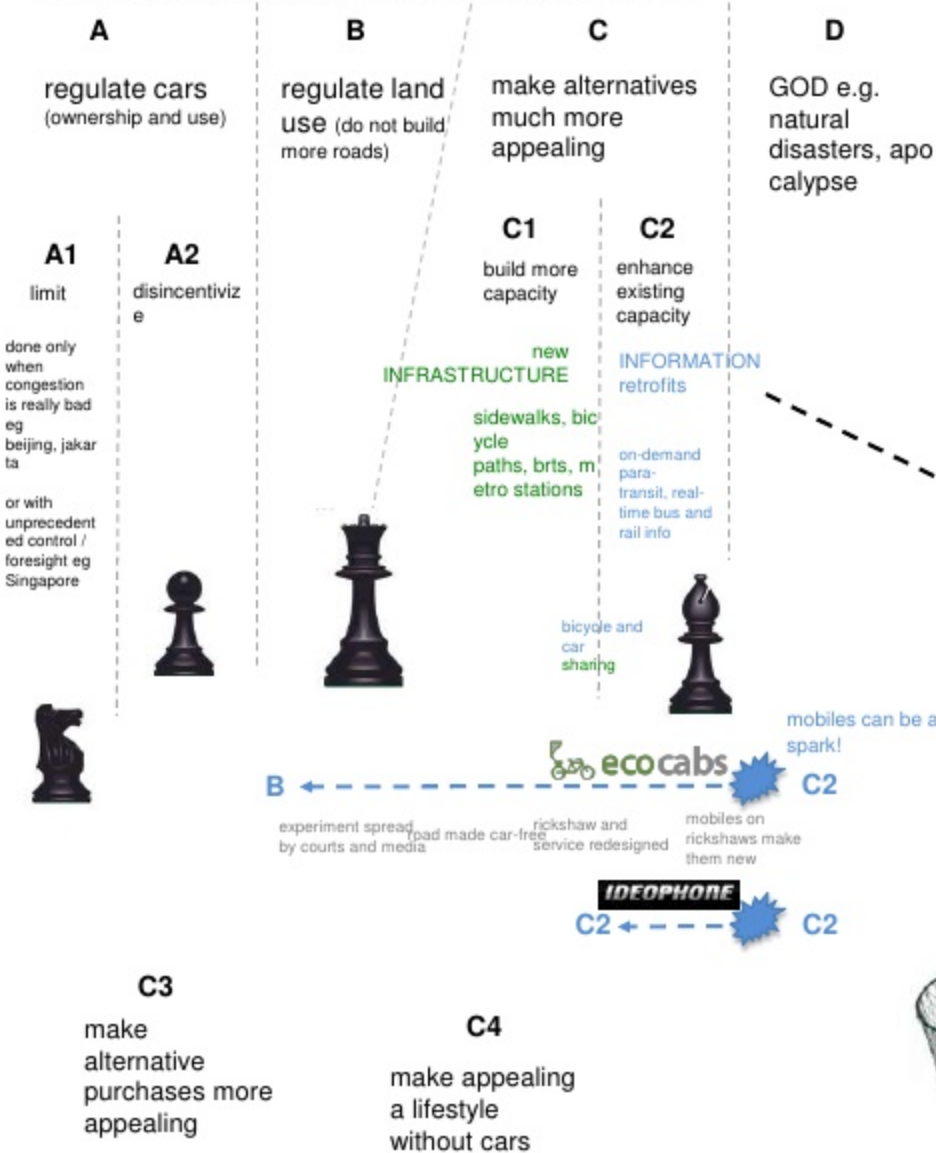
local partners to own and document the experiment's progress

**DESIGN YOUR
DHAKA JANUARY 2012**

private Motorization in South and Southeast Asia excluding Singapore

requires well-organized, capable resourced gov't which usually doesn't happen till later in development stages

how this private motorization wave might be avoided



THEORY OF CHANGE

how to support and scale this experimentation

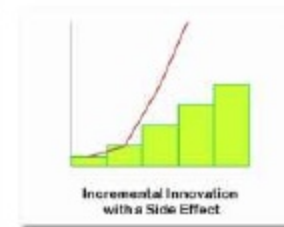
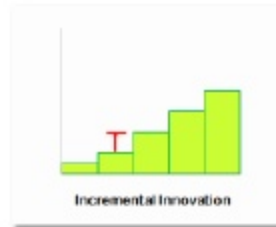
3 types of innovation

[Google CiO douglas merrill]

incremental

incremental with unintended consequences

transformative



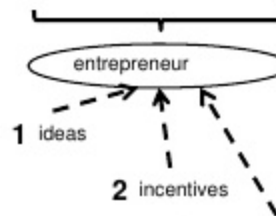
localization

INFORMATION retrofits

scalable

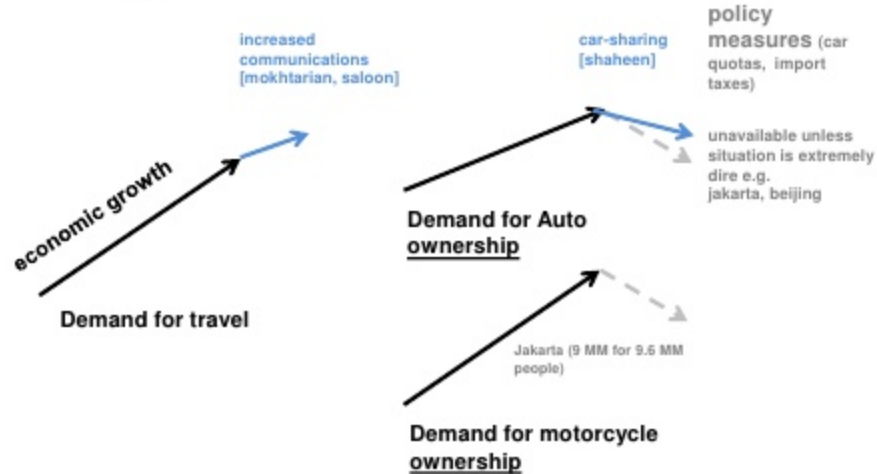
transport user problem in a specific context

mobile-driven information that can help solve



Can owning a **Mobile phone** reduce the desire to use and need an automobile? [user demand]

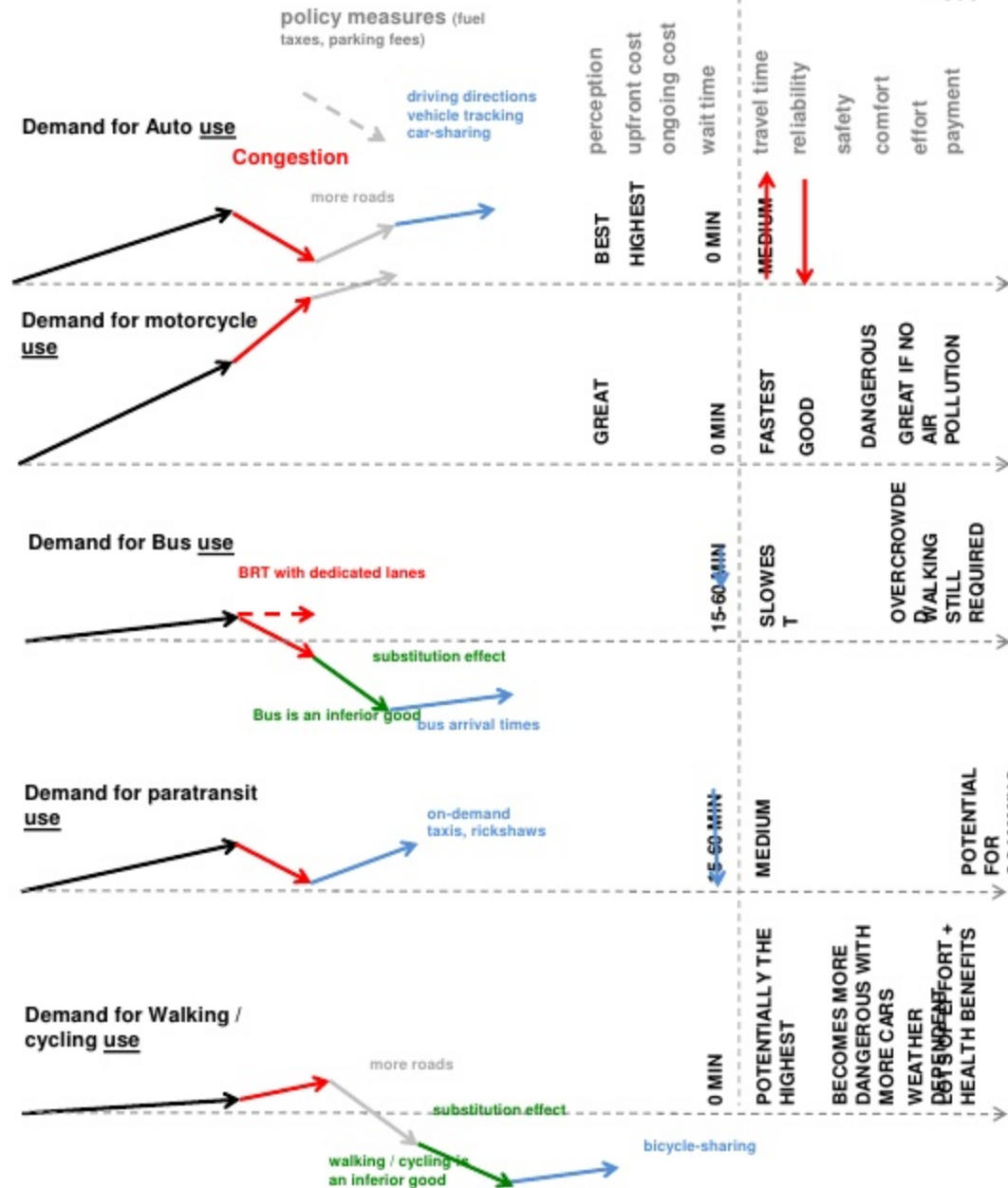
1 AGGREGATE DEMAND FOR TRAVEL (PURCHASE)



Congestion / air pollution / co2 emissions

Social equity

2 AGGREGATE DEMAND FOR TRAVEL (USE)



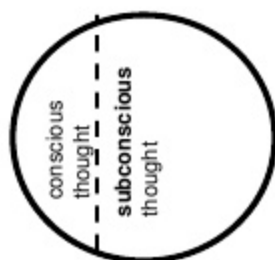
Developing Asia = South and Southeast Asia excluding Singapore

Demand-Side [2]

Can owning a **Mobile phone** reduce the desire to use and need an automobile? [user demand]

2 USER-CENTRIC TRAVEL DECISIONS

This is our brain (decision-making apparatus)



reason is often weak, our sentiments are strong, and our sentiments are trustworthy [brooks in the social animal]

A REGULATE

Difficult to do in developing contexts due to lack of enforcement mechanisms
also may impinge on freedoms, one of the core benefits of economic development [Sen]

B INCENTIVIZE

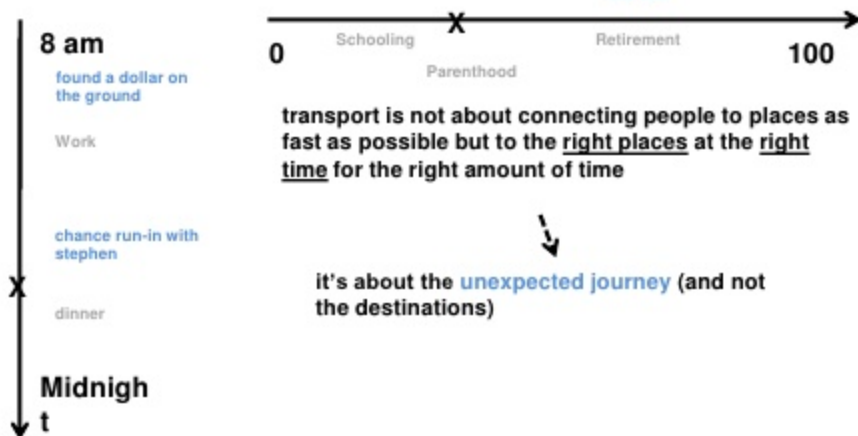
Money and Time
As incomes increase, financial incentives become less effective as transport share of income declines

C APPEAL TO HUMAN EMOTION

Aspiration, Love, sharing, surprise, wonder, sacrifice, delight

Especially as congestion makes pushes the limits of commuting time, Time becomes a potentially powerful lever but one that may be difficult to push

Managing space-Time



transport is not about connecting people to places as fast as possible but to the right places at the right time for the right amount of time

it's about the **unexpected journey** (and not the destinations)

destinations are not just fixed like home and work; or are they commercial like restaurants – they can be public places like parks

Family and Friends can be destinations; special events etc

50% car-free, development zones
car-quotas
free bus and train rides
fun shared transit

The Aspiration Index (AI), based on "current ownership" levels and "future intention" to buy a private car, shows that the AI for private car ownership is high in China, Indonesia, India, Thailand, Korea, Hong Kong and the Philippines, as illustrated in Table 2.1 (AC Nielsen, 2005).

Table 2.1: Car ownership aspiration index in selected countries

High (AI>60%)	Medium (AI: 35-60%)	Low (AI<30%)
China	Malaysia	US
Indonesia	Singapore	Sweden
India	Taiwan	Germany
Thailand	Spain	Norway
Korea	Australia	Austria
Hong Kong	France	Netherlands
Philippines	Italy	Finland
	UK	Denmark
	Belgium	Japan
	Portugal	
	New Zealand	

Source: AC Nielsen (2005), Aspiration Index, http://iran.nielsen.com/pubs/2005_q1_ap_car.shtml

perception

which destination?

how long will it take?

will I get to my destination in time?

am I comfortable?

do I feel safe?

does something smell?

Killer marketing campaigns for walking, biking and transit
cool walking paths
activity / event based travel search
multi-modal, real-time transport planner

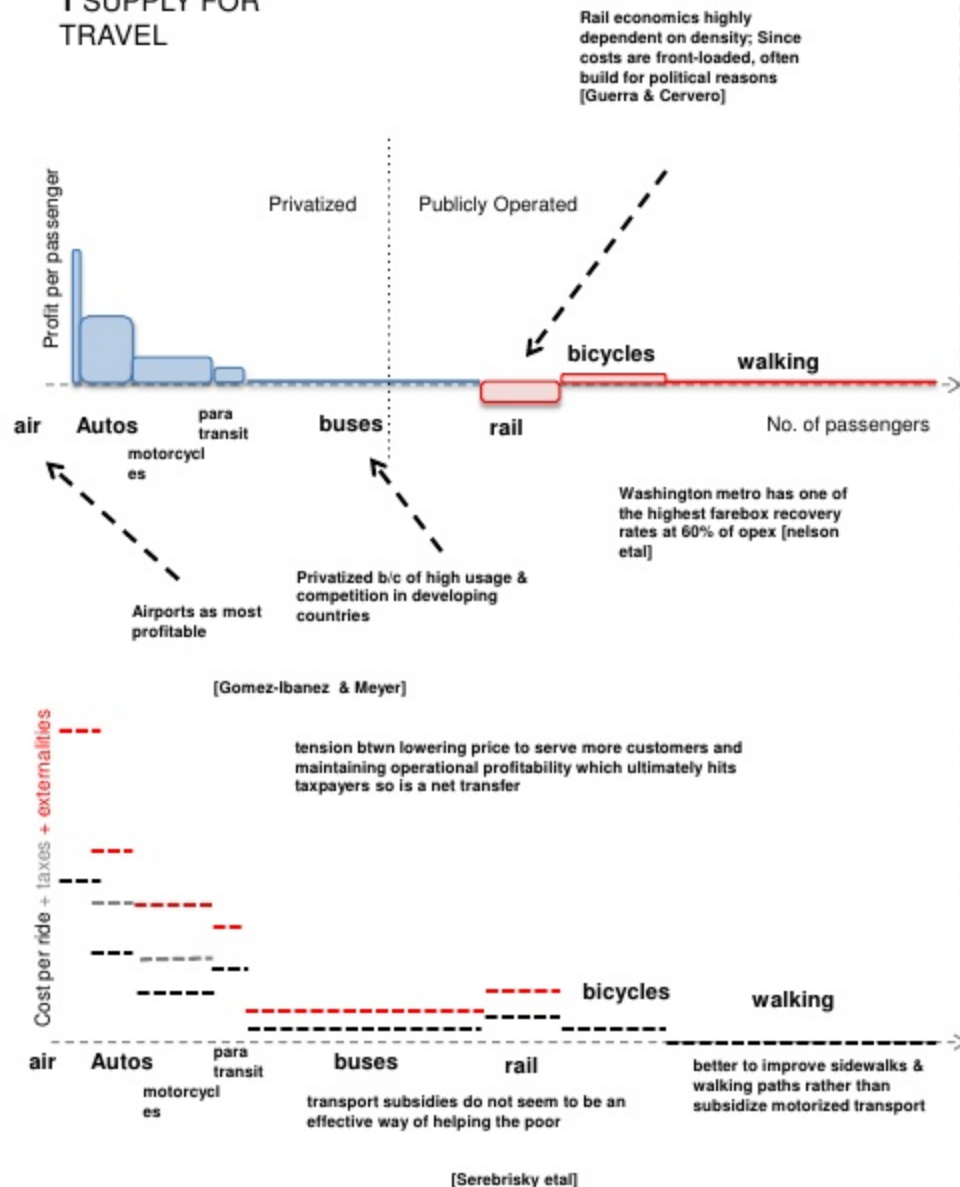
Time-Based destinations
connected to transit

Supply-Side

Developing Asia = **South and Southeast Asia excluding Singapore**

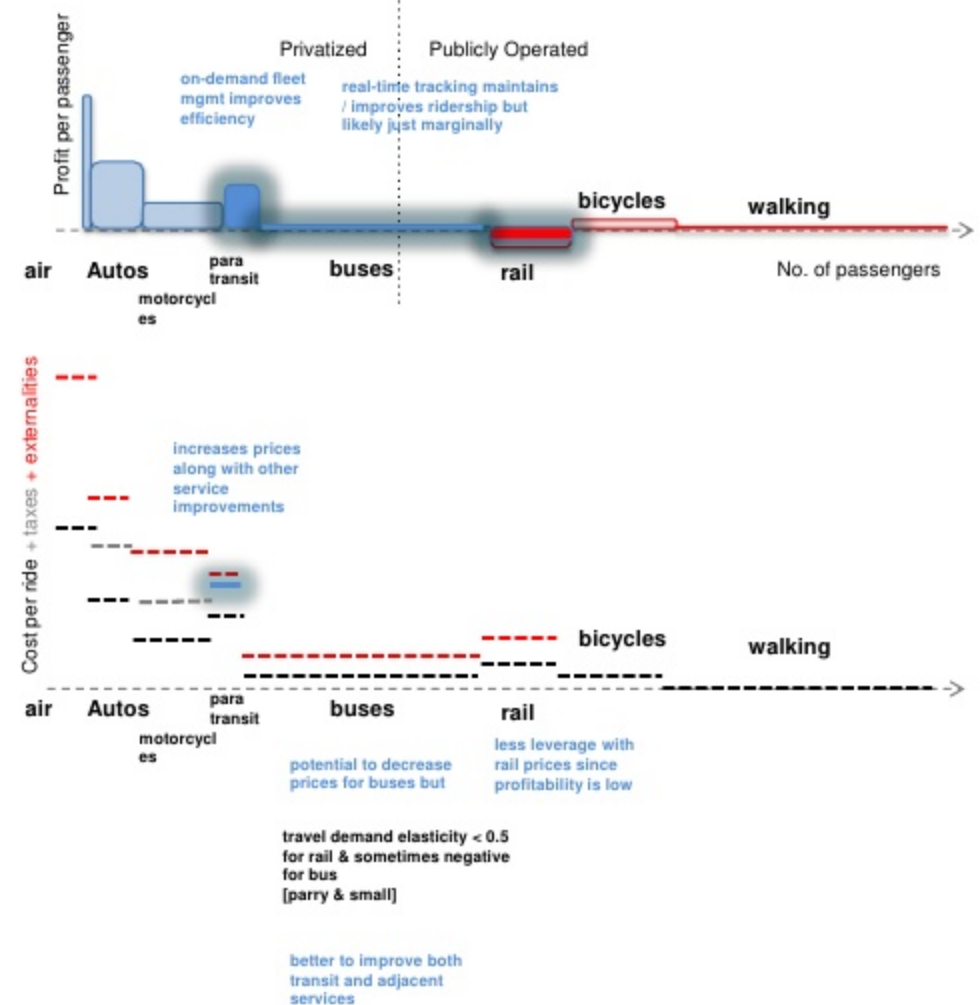
Can **Mobile phone intelligence** improve the supply of automobile alternatives?

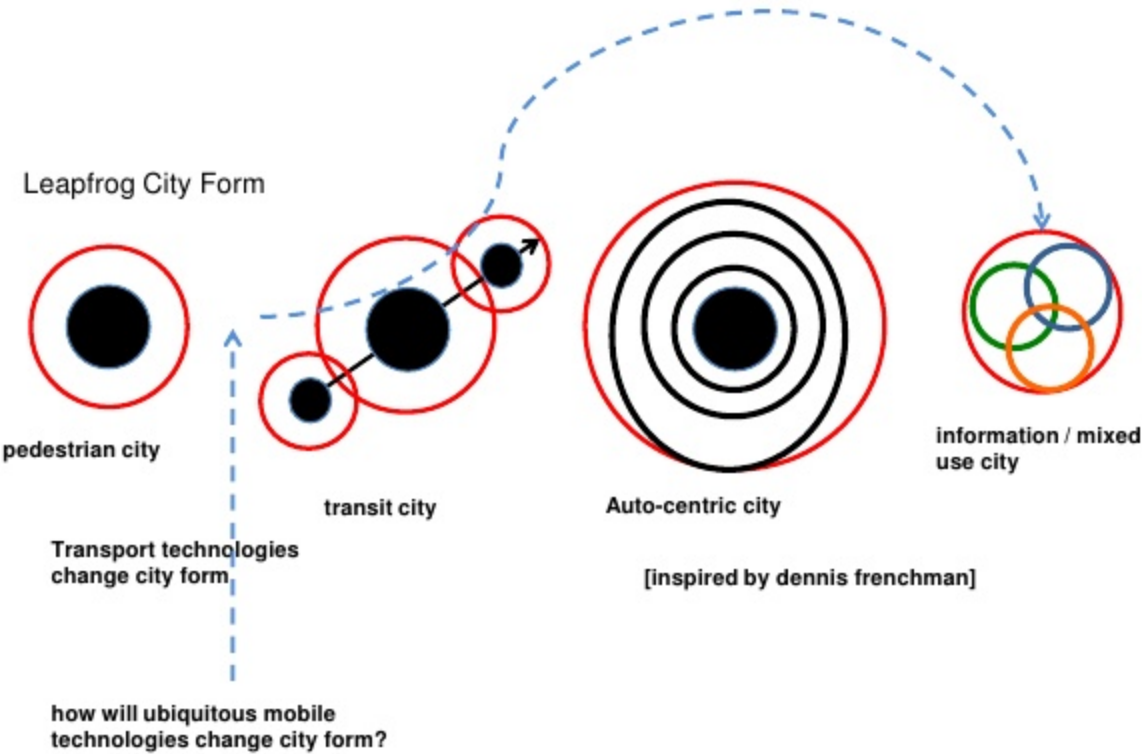
1 SUPPLY FOR TRAVEL



2 IMPACT of MOBILE PHONE INTELLIGENCE

Routing directions / mapping / local search lift all boats but especially driving

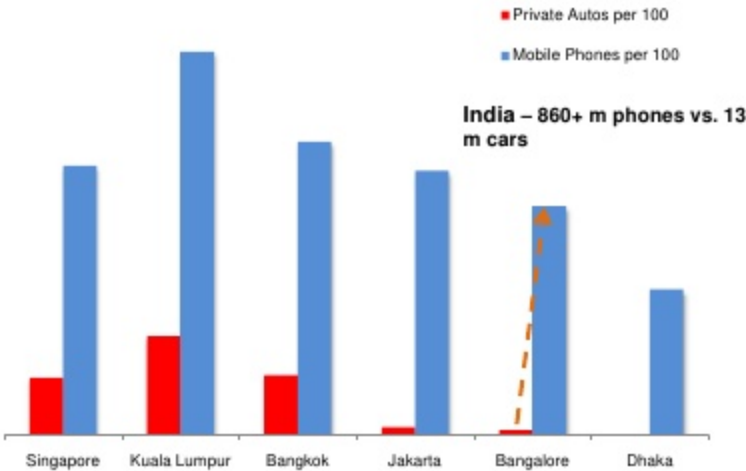




failed history of leapfrog development[tendler etal]

Leapfrog Development

Mobiles way ahead of autos



Mobile hardware

smartphones with 17+ sensors

Location-based (gps, wi-fi)



QR code

SMSs

Location-based tracking

appropriate, scalable technologies

what can you rapidly prototype?

Breakthrough technologies

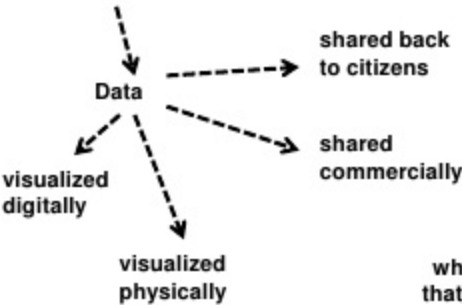
Mobile sensors can make the largely invisible much more visible and shared peer to peer

largely invisible
poor
pedestrians
environmental harm
things indoors
peoples' thoughts
peoples' movements
our own physical capabilities e.g. running speed

largely invisible
changing physical form
changing inhabitants
life lessons

low-cost smart city

distributed
people-centric
mobile phones and networks
social / puts people in groups



we can locate things on a microscale (3-5 meters) and in micro-time

what if we knew everything that usually goes on around us?

