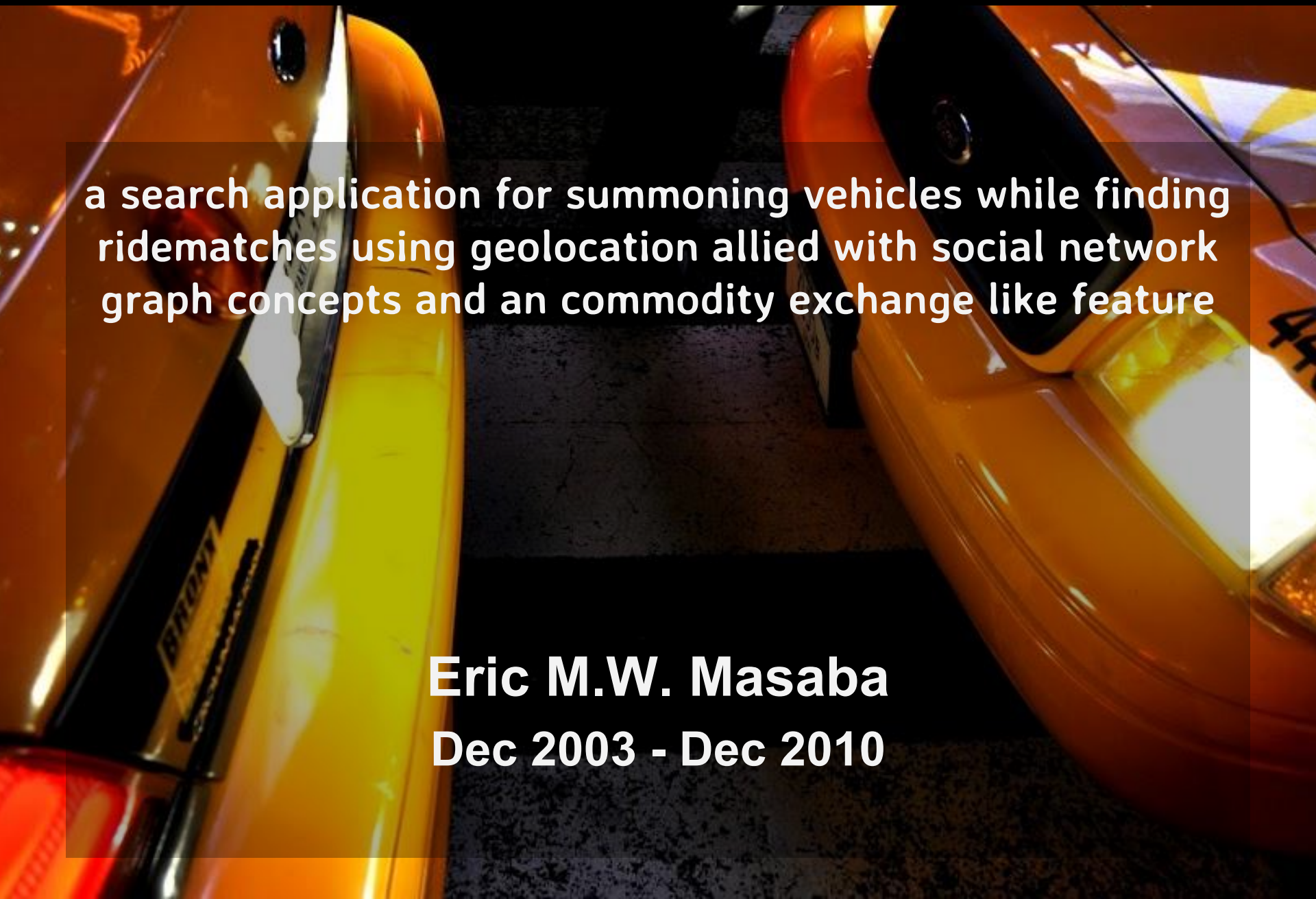

The New Transport Economy

Largescale Transport Operating System



a search application for summoning vehicles while finding ridematches using geolocation allied with social network graph concepts and an commodity exchange like feature

Eric M.W. Masaba

Dec 2003 - Dec 2010

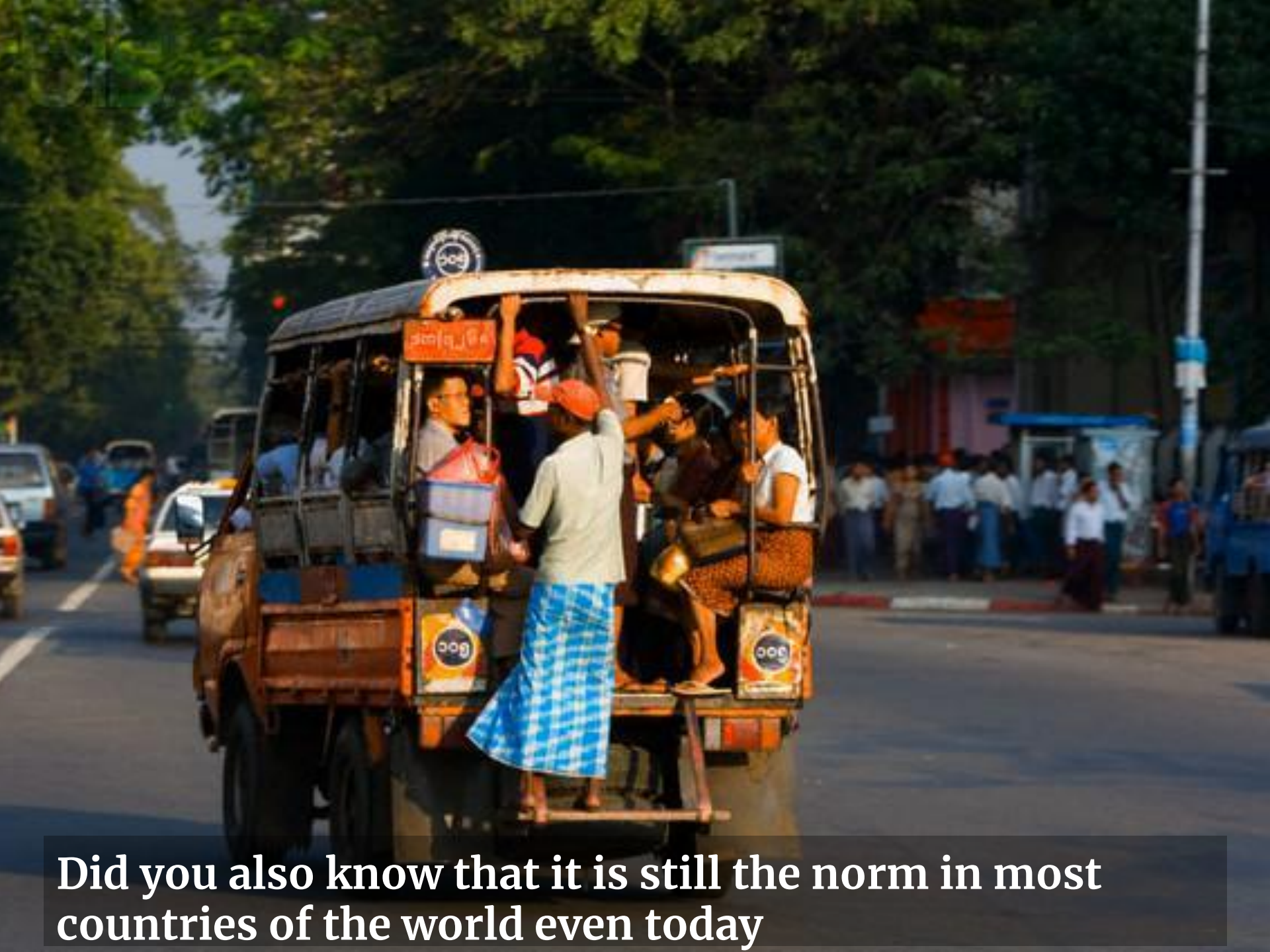
This presentation describes how **transport** can be adapted to **better** serve humanity in the 21st Century and how a system that performs all the functions described has already been designed, tested and deployed in real conditions.

The presentation will take at most about 8 minutes (at 3 - 5 seconds each page)

If you are not familiar with Texxi or the DRT Exchange, please see the list of further presentations at the end of this presentation.

Texxi allows strangers (or friends) to share seats in vehicles so as to save money and reduce congestion


Did you know that shared travel is the default mode of mechanised transport for most of human history
PUERTA DEL SOL
HIPÓDROMO



Did you also know that it is still the norm in most countries of the world even today

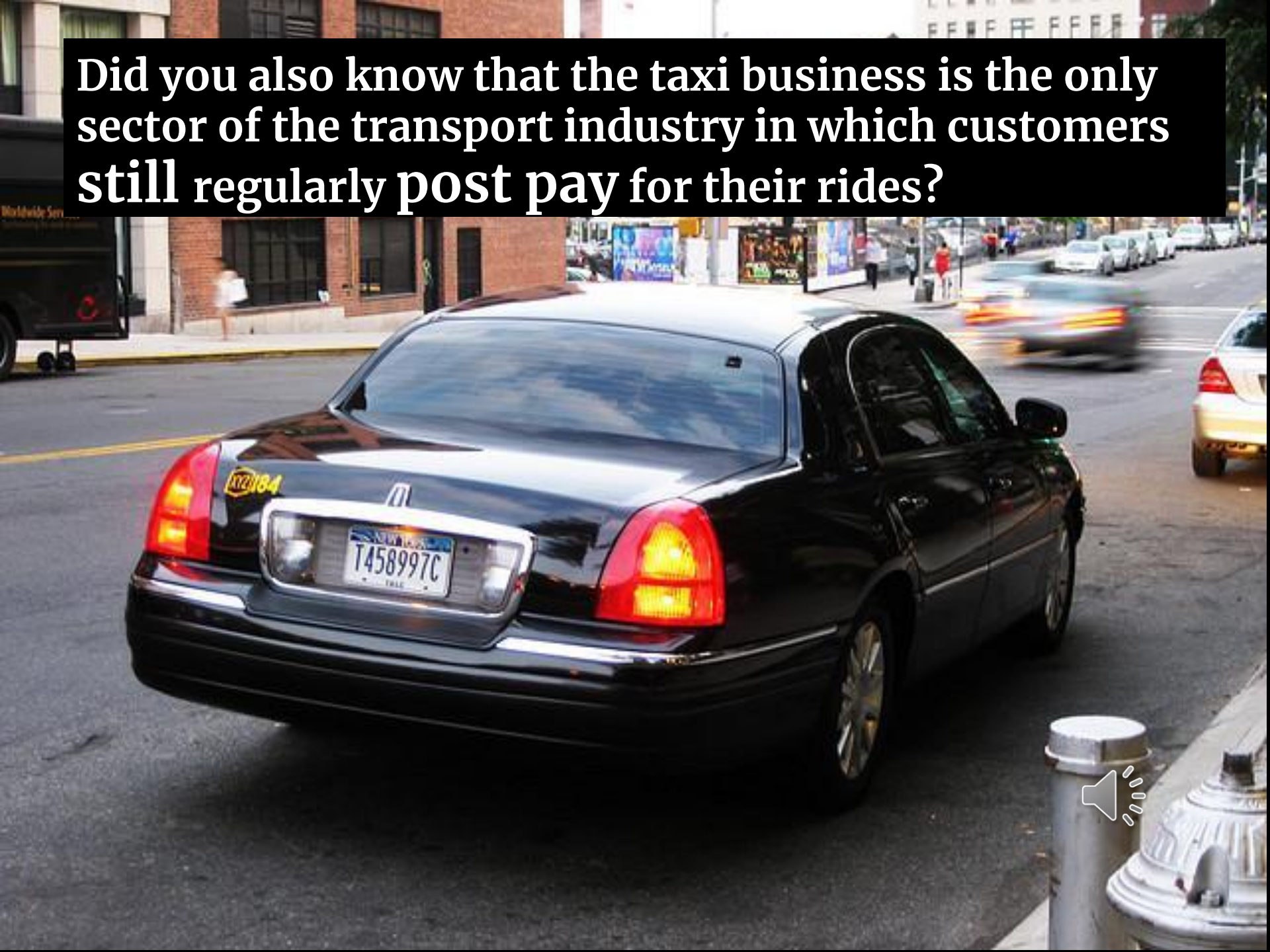
Sherut

Beirut, Lebanon

Nairobi, Kenya


Kampala, Uganda

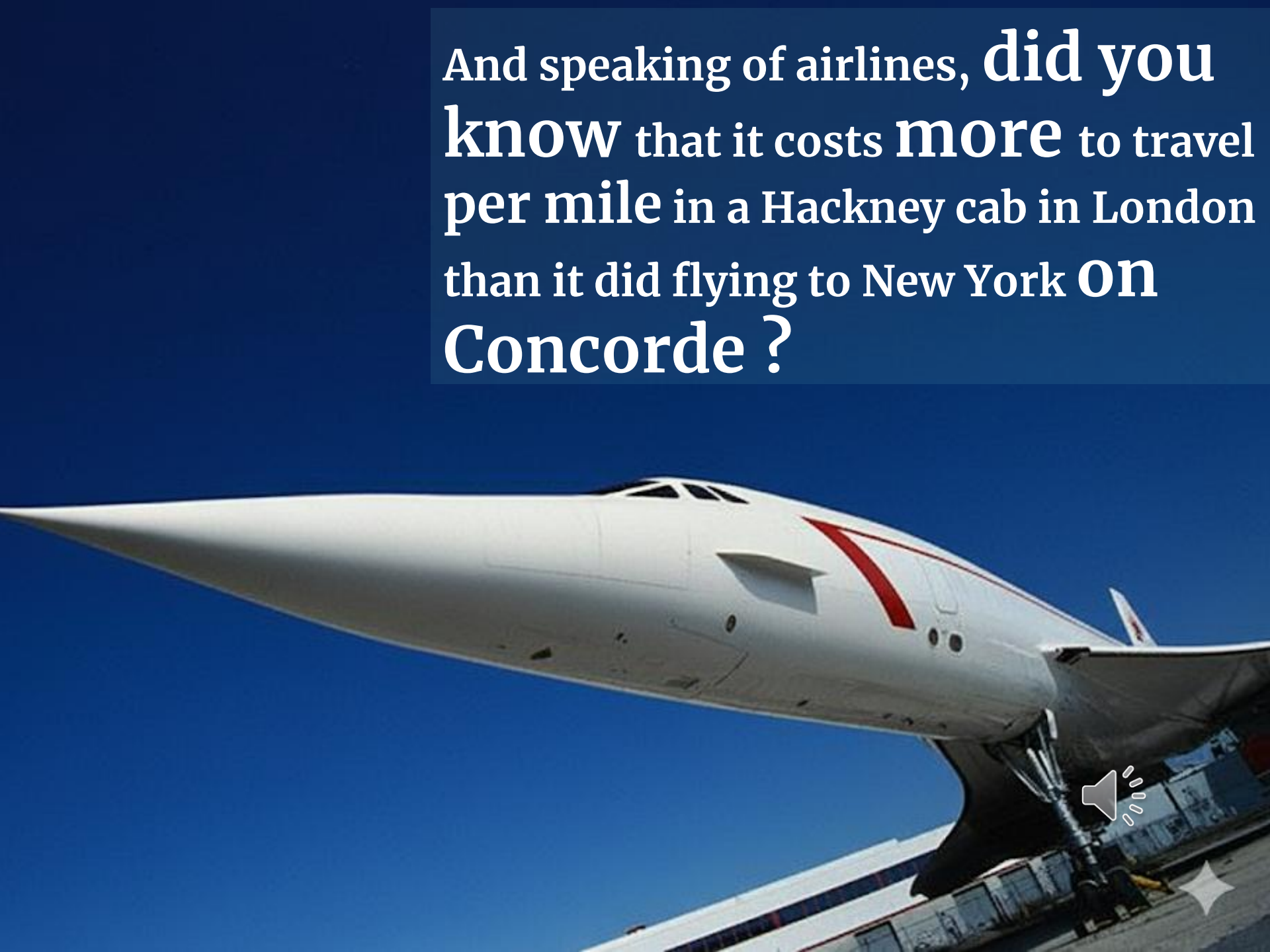

Dolmus
ŞEHİR İÇİ
ŞEHİR İÇİ
ŞEHİR İÇİ
IVECO
Turkey


Did you also know that the taxi business is the only sector of the transport industry in which customers still regularly post pay for their rides?
T458997C


Post-Pay: that means you ride first then you pay
Exposing the operator to credit risk


Can you imagine an airline in which that was normal practice?
$1,300 please

And speaking of airlines, did you know that it costs more to travel per mile in a Hackney cab in London than it did flying to New York on Concorde ?

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And back

2002 Concorde Ticket Prices

Return trip: London - New York

Cost £6,800 (FY2002)

Miles: 6,000

Cost per mile: £1.13

Heathrow to Central London Cab Fare

One Way (1 - 5 people)

Miles: 24

Cost: £42 - £80

Cost per mile: £1.75 - £3.33

Best cost (avg 2 ppl): £1.24

That the cab-ride from central London to Gatwick airport costs more

Than it does to fly to Munich


Yes
Munich!


One way taxi from SE23 to
Gatwick Airport: £72.00


The taxi fare one-way can cost more
than the return flight + beer

Why **is** that ?


Could things be
any different
in the transport business ?


Could things be any better?


So what's the
big idea?

Getting strangers to share rides in vehicles on a large-scale

On the fly

with stated preferences for their co-riders and situational ambience

What are you smoking?


We are proposing a whole new way to look at urban transport systems
in order to make use of the "river of empty seats" available in most city vehicle fleets

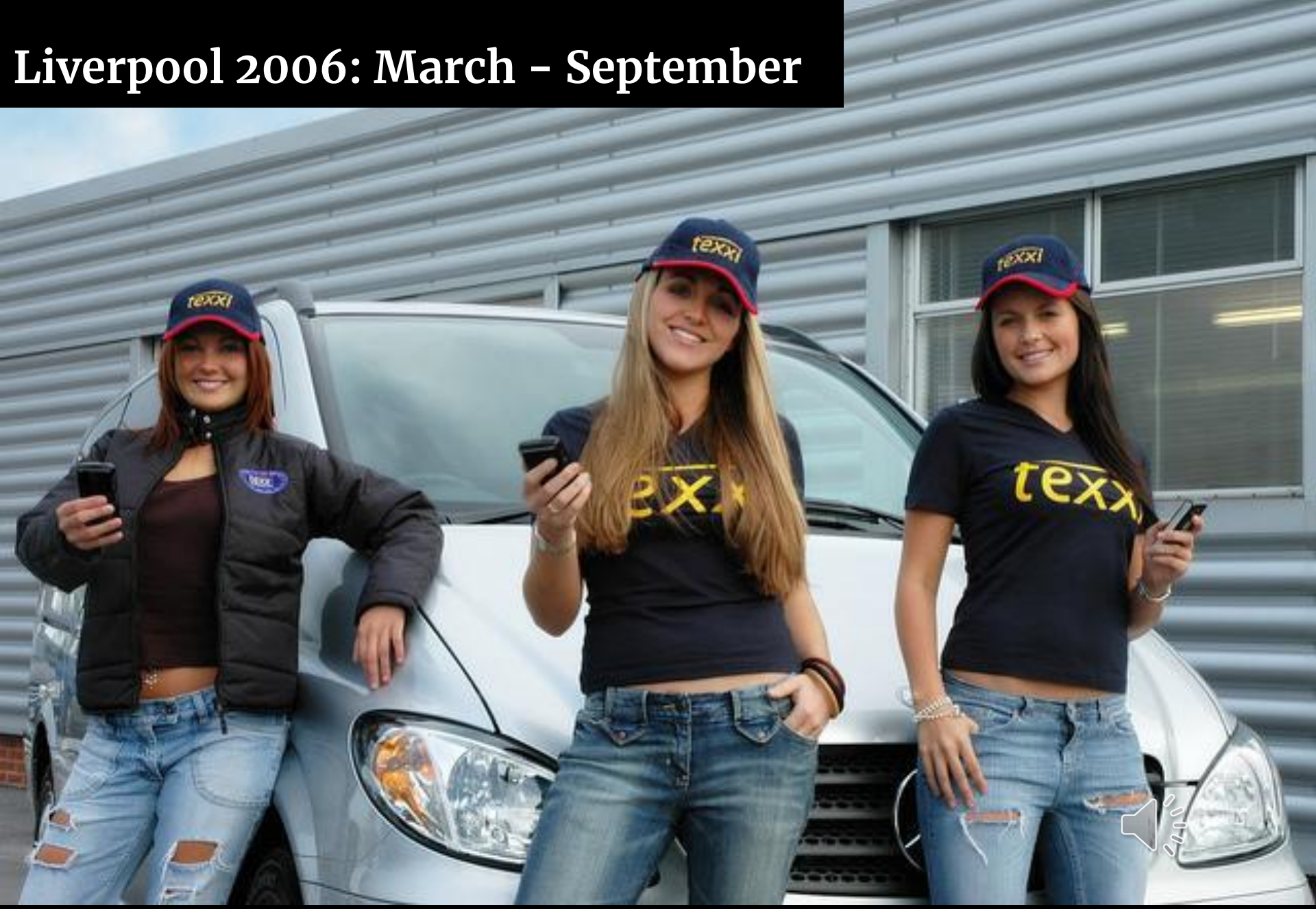

And we have proved that dynamic, real-time ridesharing is not only theoretically possible

but have achieved it in practice in real life situations with real paying customers

Strangers used SMS to hail a vehicle for a shared ride and travelled to a common set of destinations together

with wait times (headways) of as little as 5 minutes

Liverpool 2006: March - September



Fridays and Saturdays 22:00 - 03:00


Ever tried group texts?
...the fun new way to share a taxi home!
Practice safe text
...text texxi to 87222
it's safe!
text a texxi
texxi
the taxi you text
www.texxi.com

135 trips

Ryde, Isle of Wight 2008:
July - December

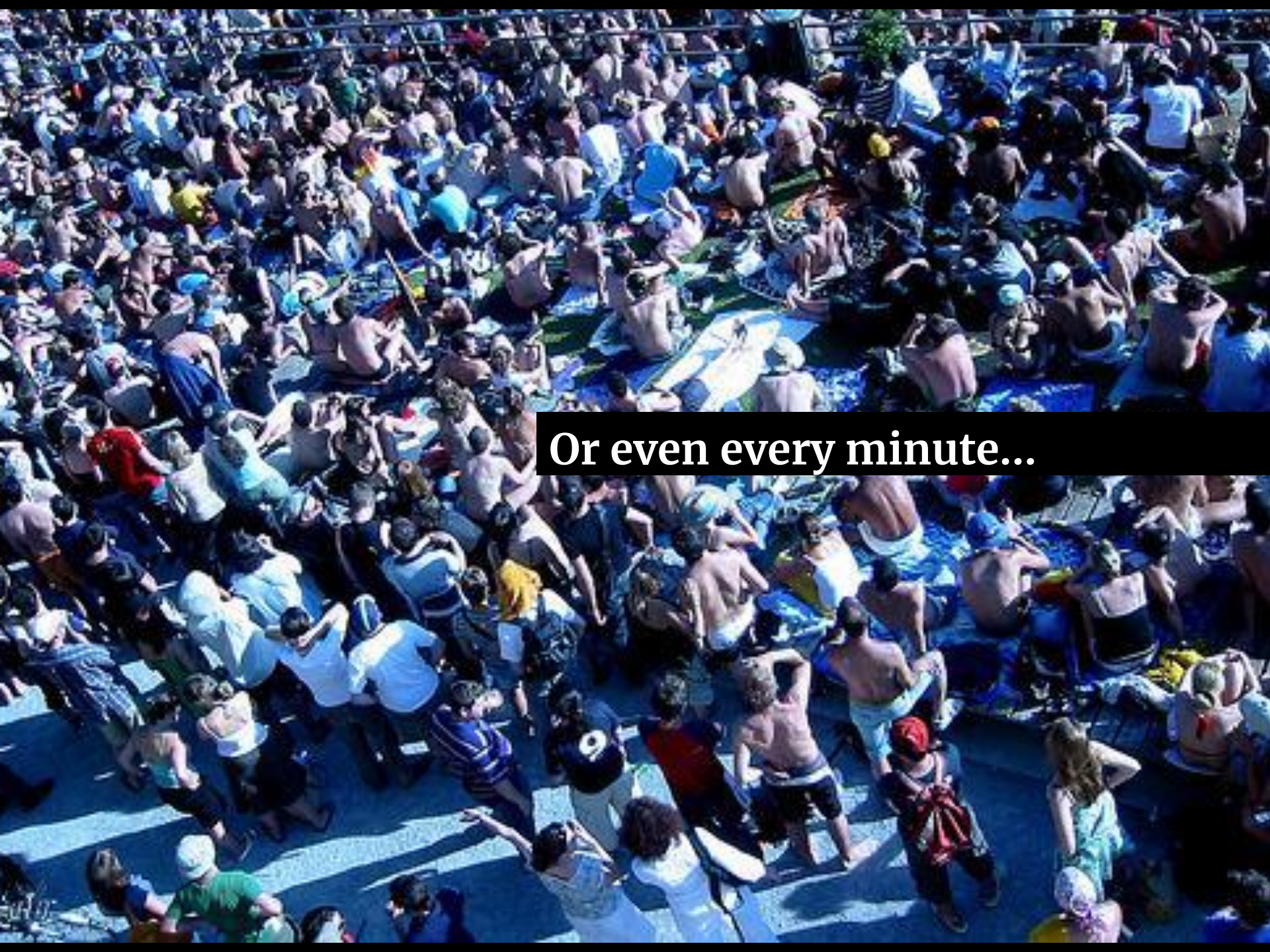
Fridays 22:00 - 03:00

As in on 700 occasions strangers summoned a shared ride in a taxi by mobile phone message

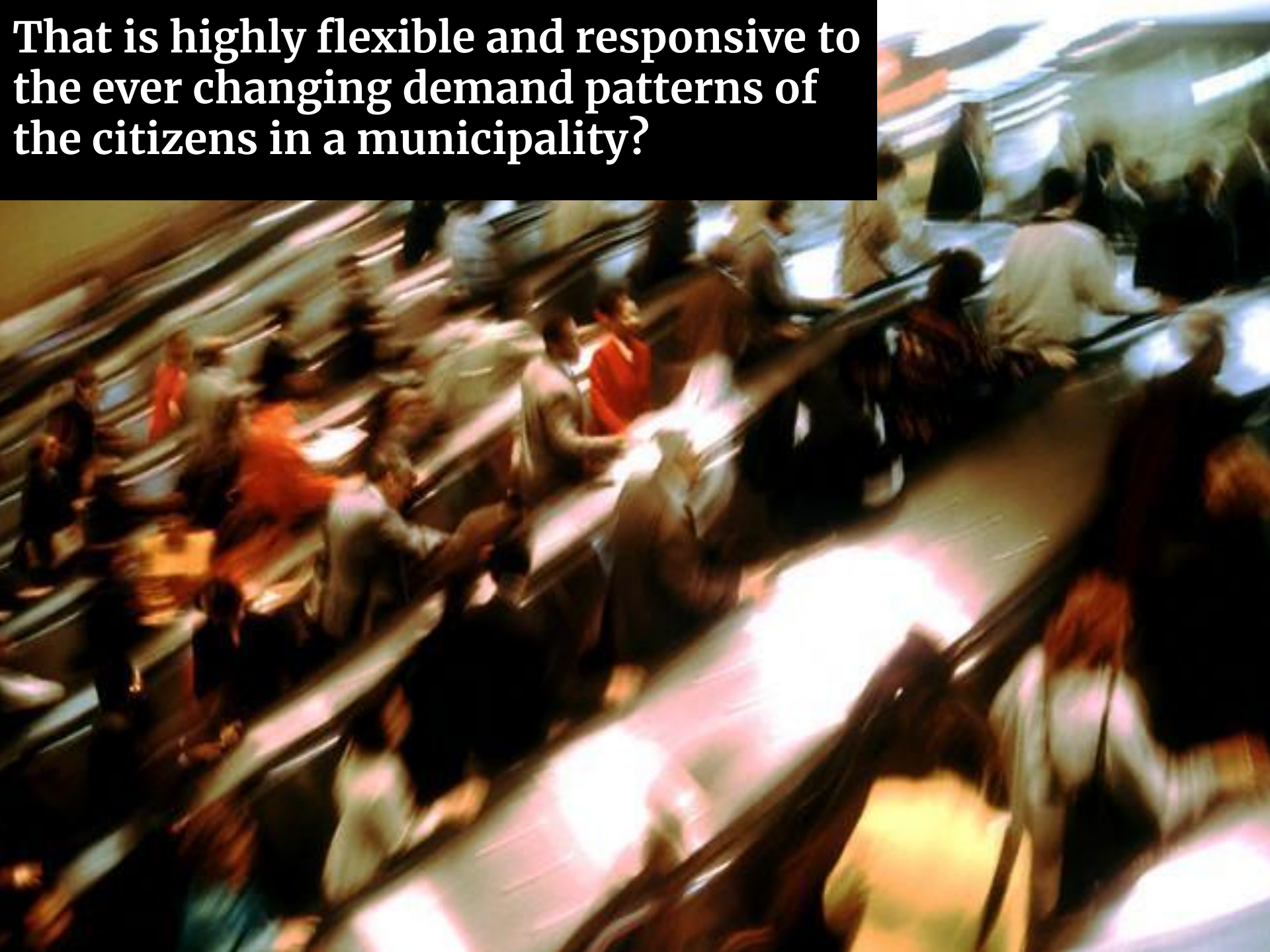

imagine

Could we now have a transport system which behaves more like a **nervous system**?

That adapts every hour to its customers?


Or even every minute...

That is highly flexible and responsive to the ever changing demand patterns of the citizens in a municipality?



Offering the full spectrum of service levels, prices and ride qualities

A choice of various vehicle types and configurations

For instance, large capacity buses for peak times

but with a preselected group of passengers so the bus functions like an express bus


or optimised for co-riders
engaging in a particular activity

NEALES

NEALES

NEALES

NEALES

NEALES

NEALES

The best vehicle to suit conditions


A choice of ambience

Choice of ride partner

appropriately equipped vehicles for parents with small children


appropriate vehicles for the mobility challenged

Shared rides for club meets

Transport solutions for medical professionals


Shared rides to help nurses cheaply travel to work
and group up to travel in order to be able to respond to shift patterns, even if they don't drive

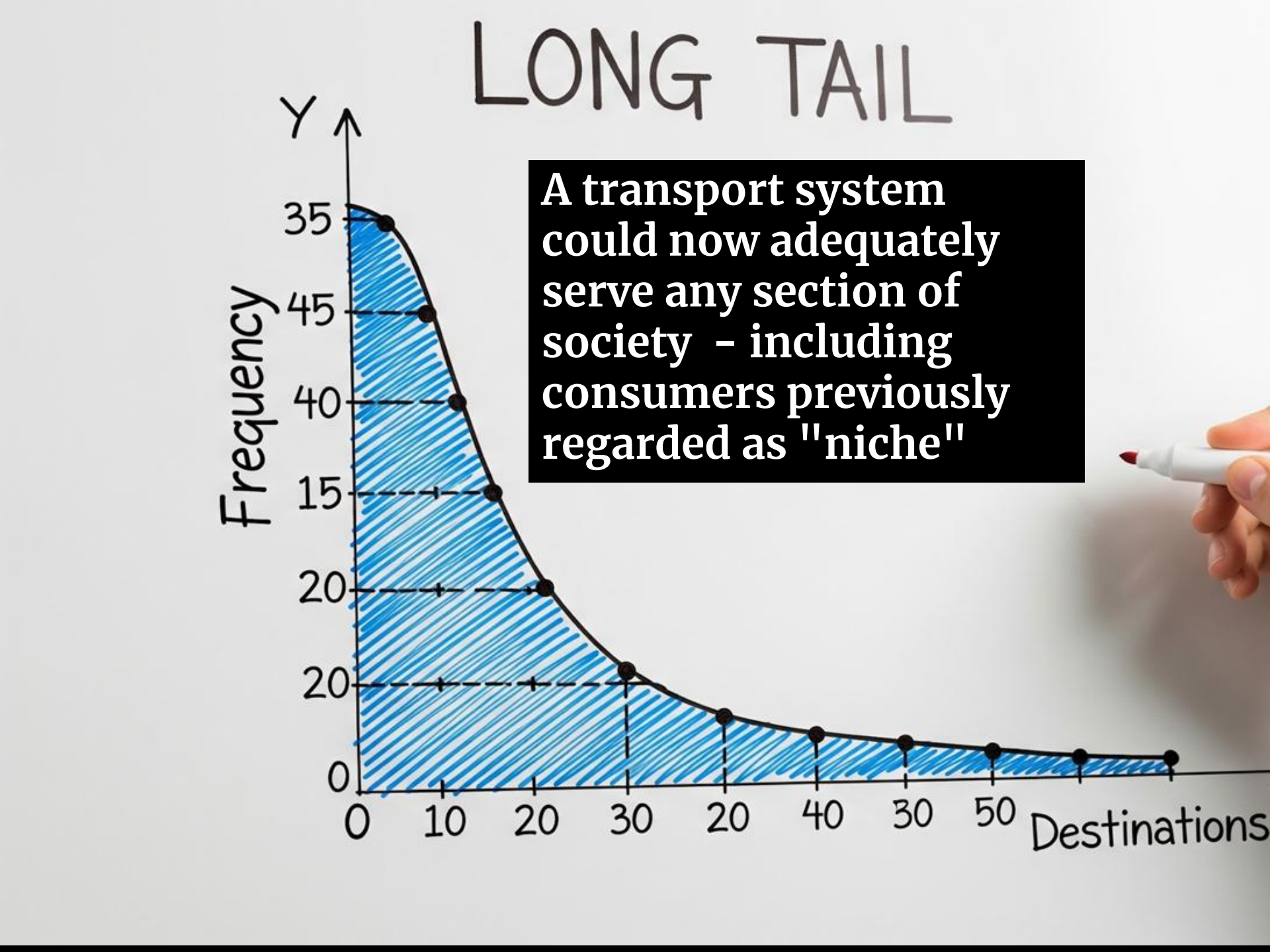
Commuter solutions for co-workers

From a system
that is always on

And always taking bookings

The potential applications are endless


Instead of pandering only to the most common type of person
A phenomenon that could be described as "The Short Head"


LONG TAIL
Y
Frequency
35
45
40
15
20
20
0
0
10
20
30
20
40
30
50
Destinations
A transport system could now adequately serve any section of society - including consumers previously regarded as "niche"

Eliminate the language and script difficulty of both hailing a cab...

and specifying a destination


Innovative, intuitive hailing
and billing mechanisms


Catering to tourists and non-native speakers
Fashion Boutiques
Food Court
Cinema

Branded full service transport firms rather than simply taxi firms, coach operators or bus companies

The distinction between buses, limousines and taxis could finally be erased

Buses could operate almost like taxis - picking up passengers from nearer their front doors

Or indeed taxis could now be considered to be small buses, replacing many functions previously fulfilled by scheduled services


With a certain subset of customers inside, like business travellers
Bond Pricing
FINANCIAL TIMES

Activity partners

Or school children

Corporate outings


Businesses could now attract
and retain even more custom


and bar or restaurant patrons could now avoid
the hassle of trying to arrange a designated driver

or the hassle of a conviction

Women could opt to travel in women-only taxis for safety purposes


with a woman driver


And how about payment methods?
CHANEL
GUCCI

Could these be done any better?

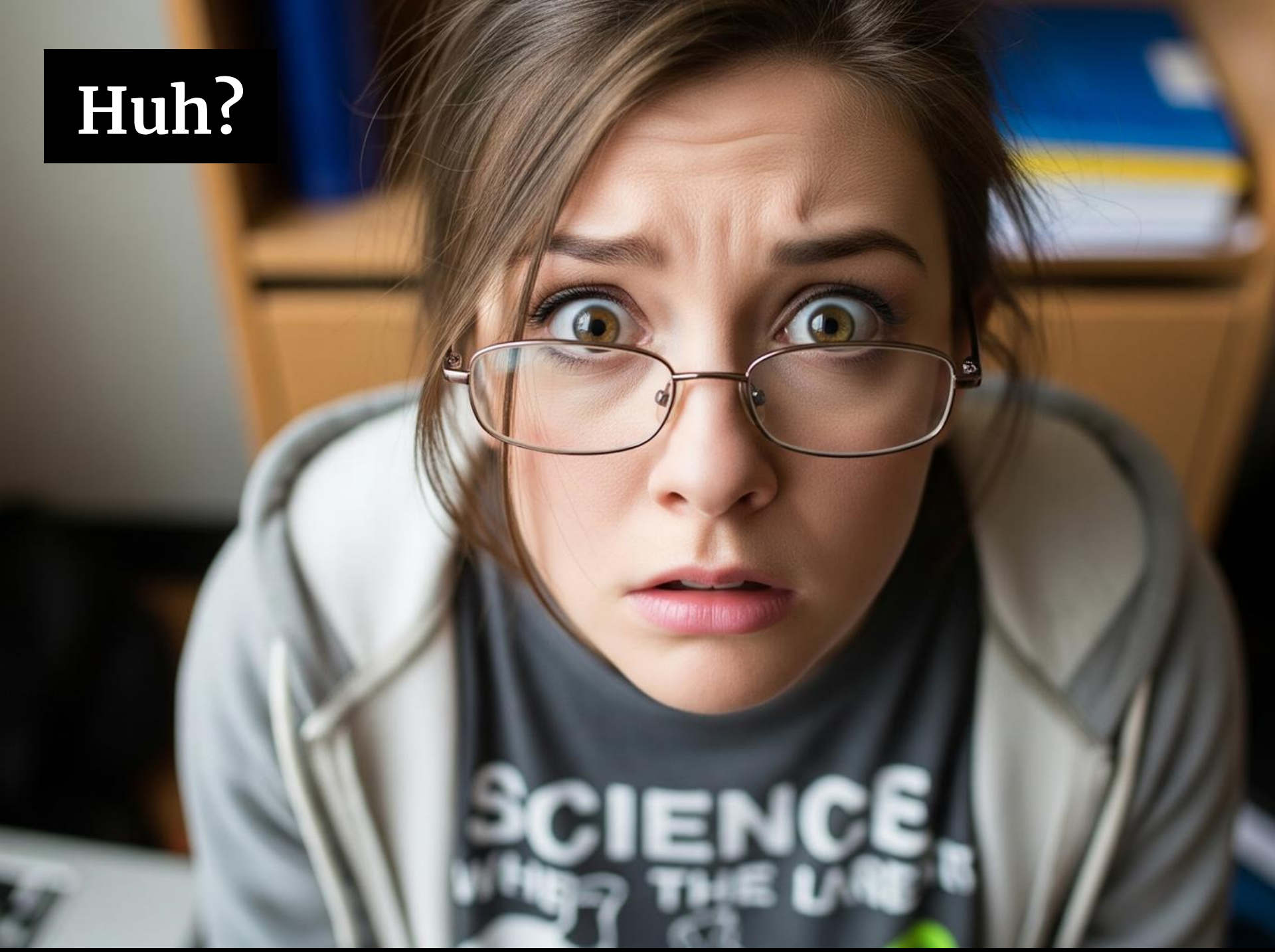

Credit Cards?
VISA
SIGNATURE
AT&T
9:41 AM
Jackson Walker
$15.33
Enter an optional note
Clear
7
8
9
4
5
6

Prepaid Accounts?


Text Messages

Electronic Vouchers

And how about options?


Huh?
SCIENCE

As in you pay a small amount upfront to be able to get a specific ride at a certain price on a specific future date


Or conversely be able to sell a ride that you may not be able to use as planned for a certain minimum price


Much as how
commodity futures
are traded on exchanges

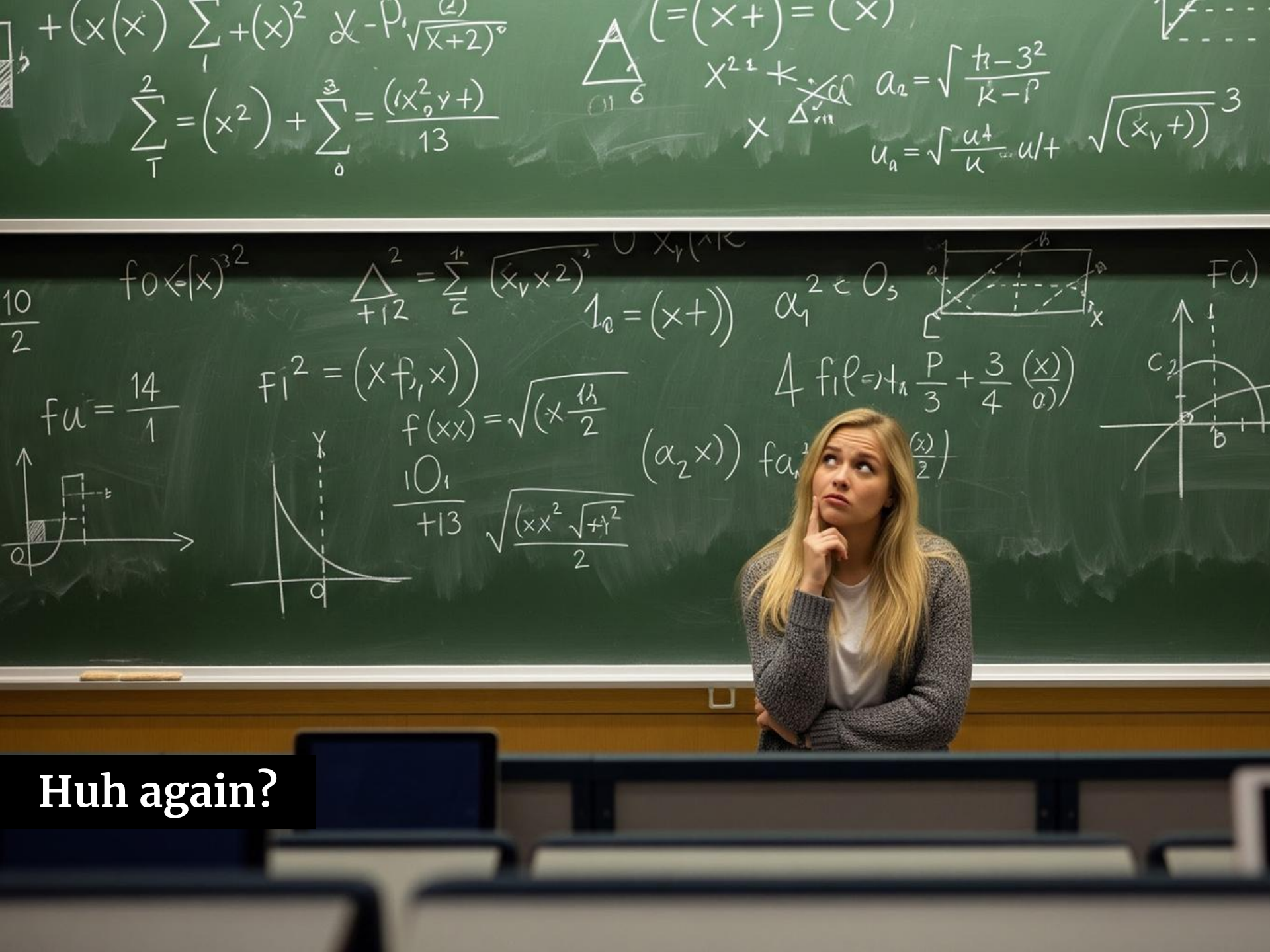

Which is incidentally where such derivatives found their first large scale uses

More like a currency (futures) exchange

Think of buying a ride like you would buy *foreign currency* for a trip abroad

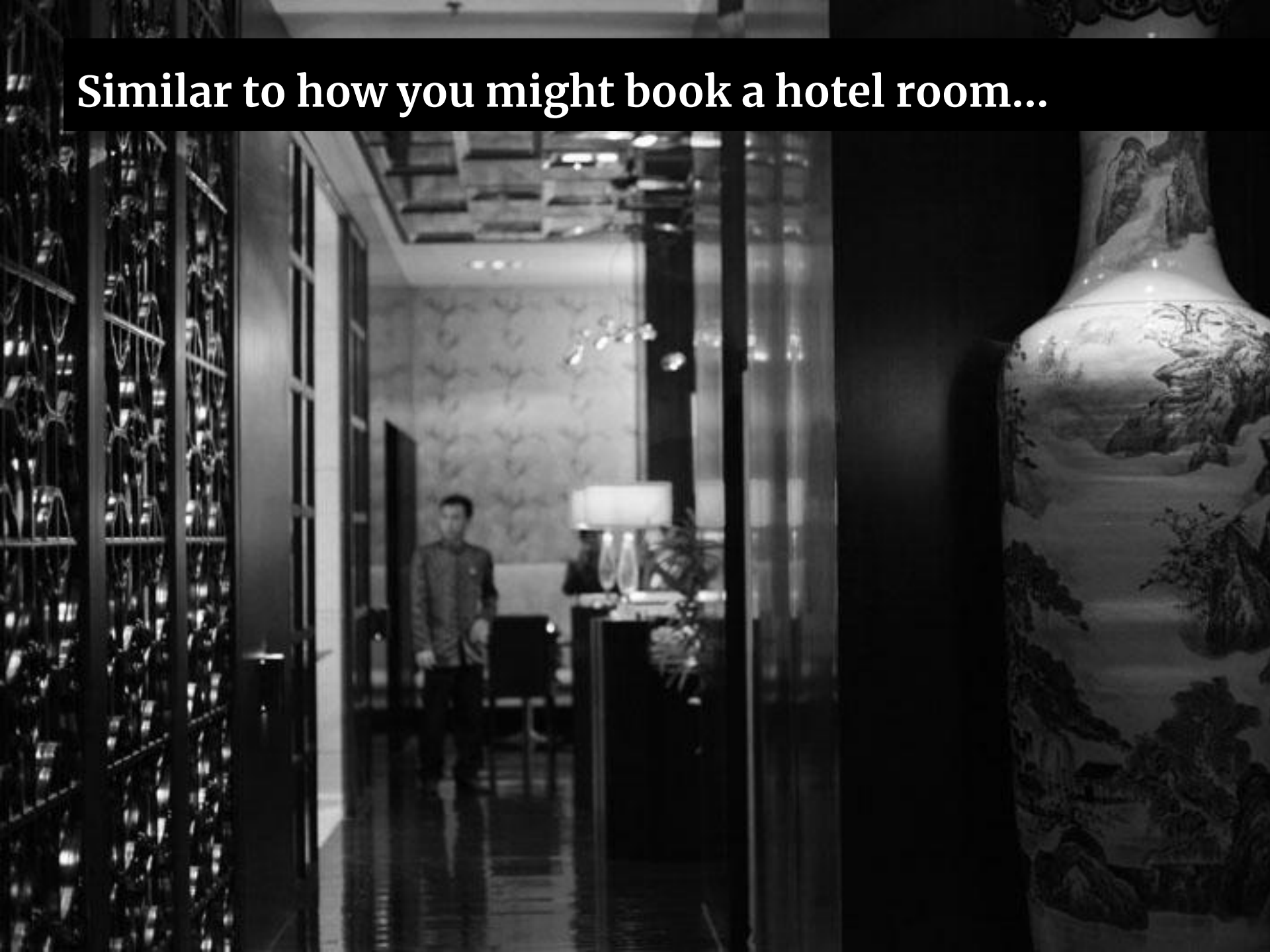

Or even mobile phone minutes
BlackBerry
Utility Bills

And Forwards and Futures

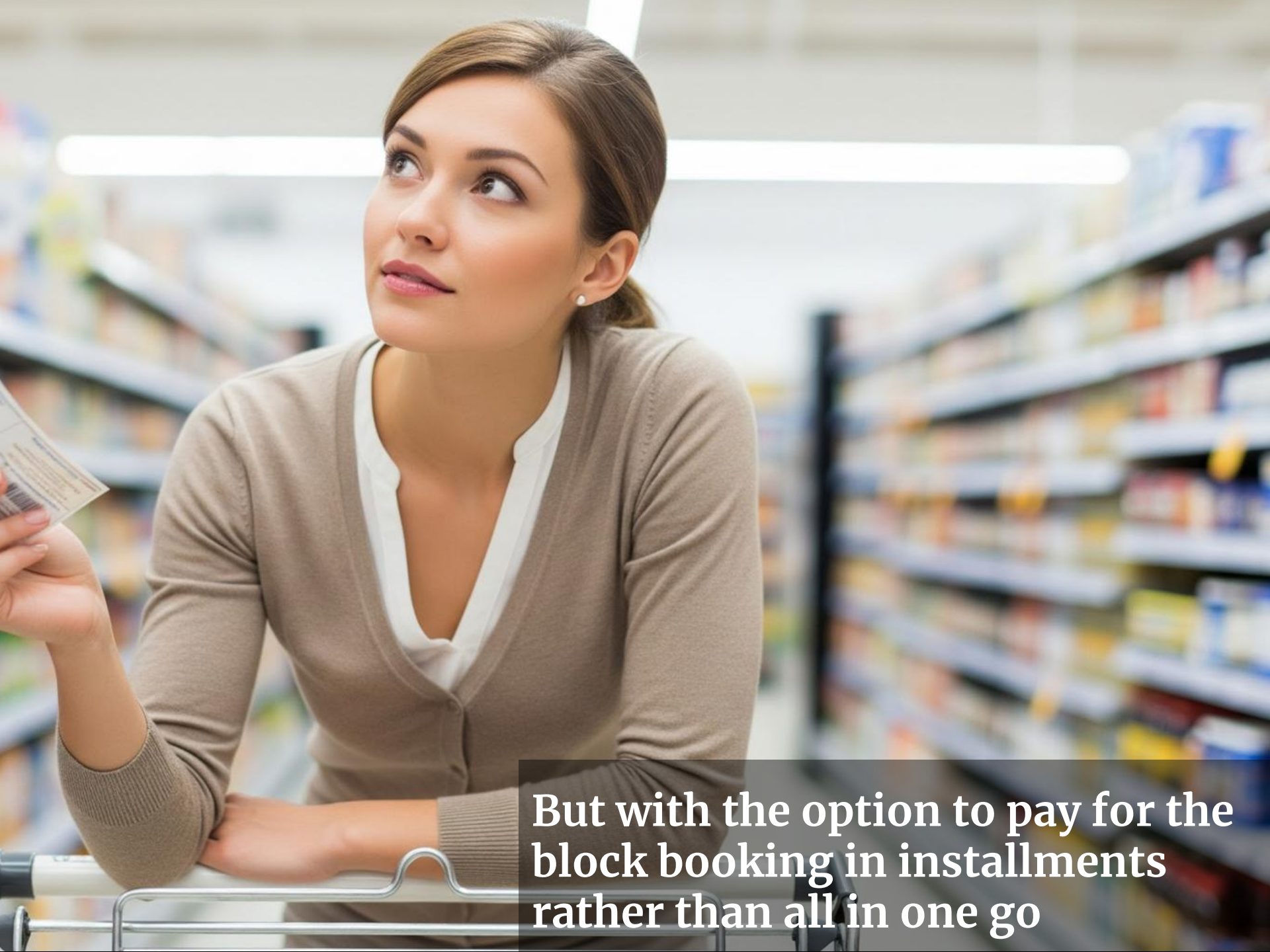

Huh again?

Like buying blocks of trips (of a specific quality and to a certain destination) in advance


Much like how people buy contracts for certain agricultural commodities
or oil


Similar to how you might book a hotel room...


or airline seat....


But with the option to pay for the block booking in installments rather than all in one go


Rate your ride provider

Rate your travel partners

Rate the overall experience


As when buying airline seats or hotel rooms, know the final price of the trip before you even board – based on the destination
BRITISH AIRWAYS
LONDON HEATHROW (LHR)
NEW YORK JFK
JOHN SMITH
JOHN 1201
BUSINESS CLASS
SEAT
12A
BRITISH AIRWAYS
LONDON HEATHROW (LHR)
NEW YORK
JOHN SMITH
BUSINESS CLASS
SEAT
12A

And know when your vehicle is due to leave, since you booked it

Make direct comparisons between providers

And if you cannot use a booked trip or a series of trips - simply sell them back to the exchange

Like a trader

That, in a nutshell, is the Transit Exchange Concept

Designed to make the transport system in a city into a holistic entity – more like a travel operating system

or a "Battlespace"

More precisely – a "Travelspace" – with applications, nodes and protocols


One that finds travel partners for people in order to make the most efficient use of each of fuel, time and the roadspace in a city
while lowering the cost of movement for all passengers


And while keeping the earnings up
for the vehicle operators

Because we are all more connected in our lives and habits than we may realise

So we can thus optimise the travelspace and its actors.

The future just happened. The future is now.

Thank you for watching

Texxi was invented by Eric Masaba in 2004 as a solution to the predicted trifecta of a credit crisis, high oil prices and congestion based on global growth of numbers of automobiles.

At the time of invention, Texxi and Crane Dragon had no affiliation to any institution. Academic or Corporate.

More presentations

Texxi – The Electricity Market
Texxi – The 7 Modes
The Core Concepts of a Transit Exchange
Texxi – Company Overview
Connectivity of a Transit Exchange
Texxi – EU Market Size
Texxi – The Market Opportunity
New Transport Policy Options
The DRT Exchange Explained
The New Transport Economy (REPLAY)
Results from Texxi Deployments 2006 – 2009
Market Makers and Liquidity in DRT Markets
The Long Tail for the Transport Industry
The Evolution of Travel and Search