handelsblatt.com

UNIVERSITY of STIRLING

The Governance of (Smart) Mobility…

Why public values matter

Professor Iain Docherty

BE THE DIFFERENCE

What is Good Governance for Mobility?

Transport 101

Transport 101

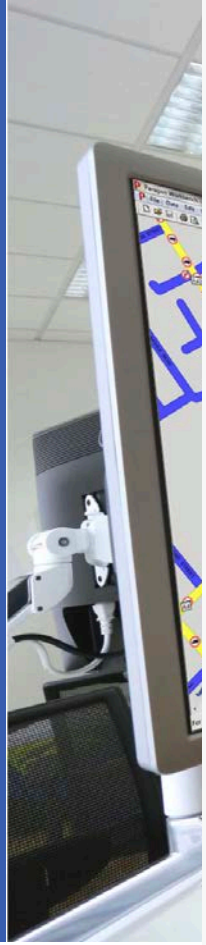
Transport is a derived demand

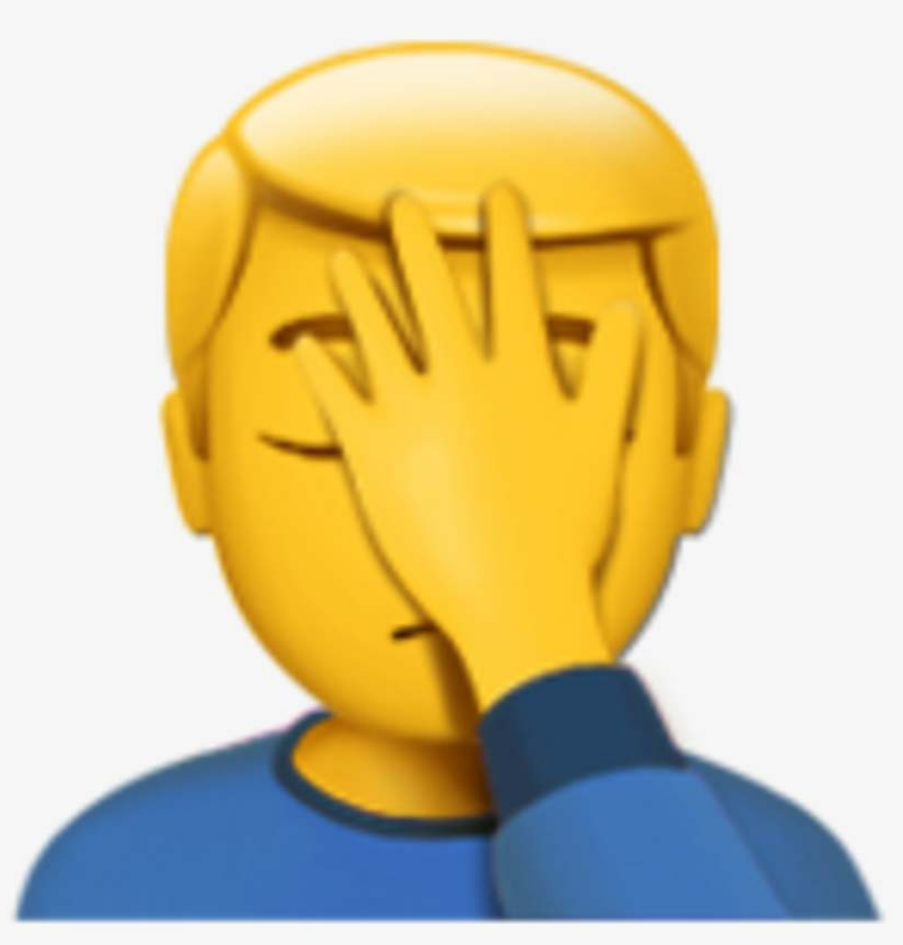
Transport 101

"Transport creates the utilities of place"

White & Senior (1983)

Boys' (and they *are* mainly boys) toys…





Transport 101

“Transport creates the utilities of place”

White & Senior (1983)

Transport 101

How we plan transport needs to reflect wider economic, environmental and social needs

Transport 101

Or… 'what kind of places do we want to live in?'

UNIVERSITY of STIRLING

What are the current challenges for the Governance of Mobility?

BE THE DIFFERENCE

He’s seen the future and he thinks it works…

“… if cars could drive themselves, there would be no need for most people to own them. A fleet of vehicles could operate as a personalized public-transportation system, picking people up and dropping them off independently, waiting at parking lots between calls…

Streets would clear, highways shrink, parking lots turn to parkland.

Reality check

Key contentions

- No amount of smart technology will overcome the need for good policy, planning & governance

- We need to plan proactively to try to ensure socially- and environmentally-desirable outcomes from smart mobility and to minimise externalities because a positive outcome is not guaranteed

Producer interests

- Crucial to think about what smart proponents *really* want

- ‘Smart’ mobility is being sold on utopian grounds of ‘solving’ a wicked problem though more ’efficiency’ and ‘choice’… this is, to put it politely, naïve

Follow the money

- New actors want/need *more*, not less mobility
- Oligopolistic/monopolistic power
- Extract high rents (that's what dominant actors do)
- Control… over your time and choices

Do tech companies want to make the places we live in better?

Yes and no…

ELON MUSK UNVEILS THE BORING COMPANY'S CAR-FLINGING TUNNEL

The 'tech bro' solution…

Money talks

- New entrants to mobility marketplace are enormously powerful
- They will determine what the transport system looks like in 20 years' time if we don't act quickly

Microsoft Surpasses $1 Trillion Valuation

Disruptive innovation is… disruptive

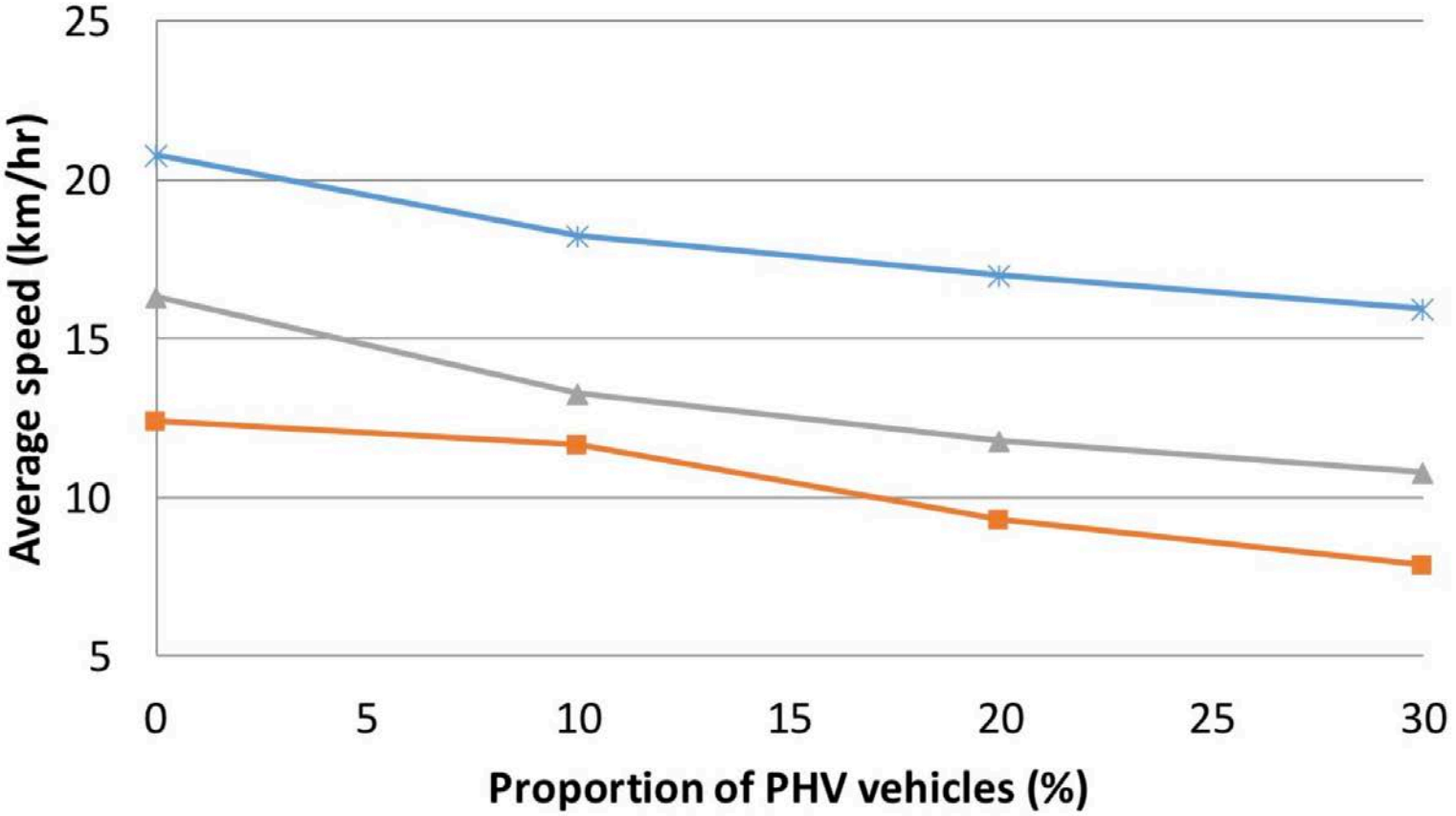
- Meanwhile, whole notion of ‘public’ transport under pressure
- What’s a bus for? It’s just an oversized, dirty, inflexible Uber!
- Young people less concerned with things we previously thought were very difficult to do in policy e.g. surge pricing (!)

Plus ça change…

- The (macro) public policy problems are resilient and might not look that different in future
- Congestion
- Social exclusion / inaccessiblity
- Pollution /emissions

Current trends are presenting new challenges

- Increased intensity of motorised traffic
  - congestion = demand concentrated in time and space
- Traffic entering city centres decreasing but congestion increasing… cruising for rides (also white vans)
- Shared vehicles (which are replacing public transport (and possibly active travel) trips disproportionately) are increasing journey times

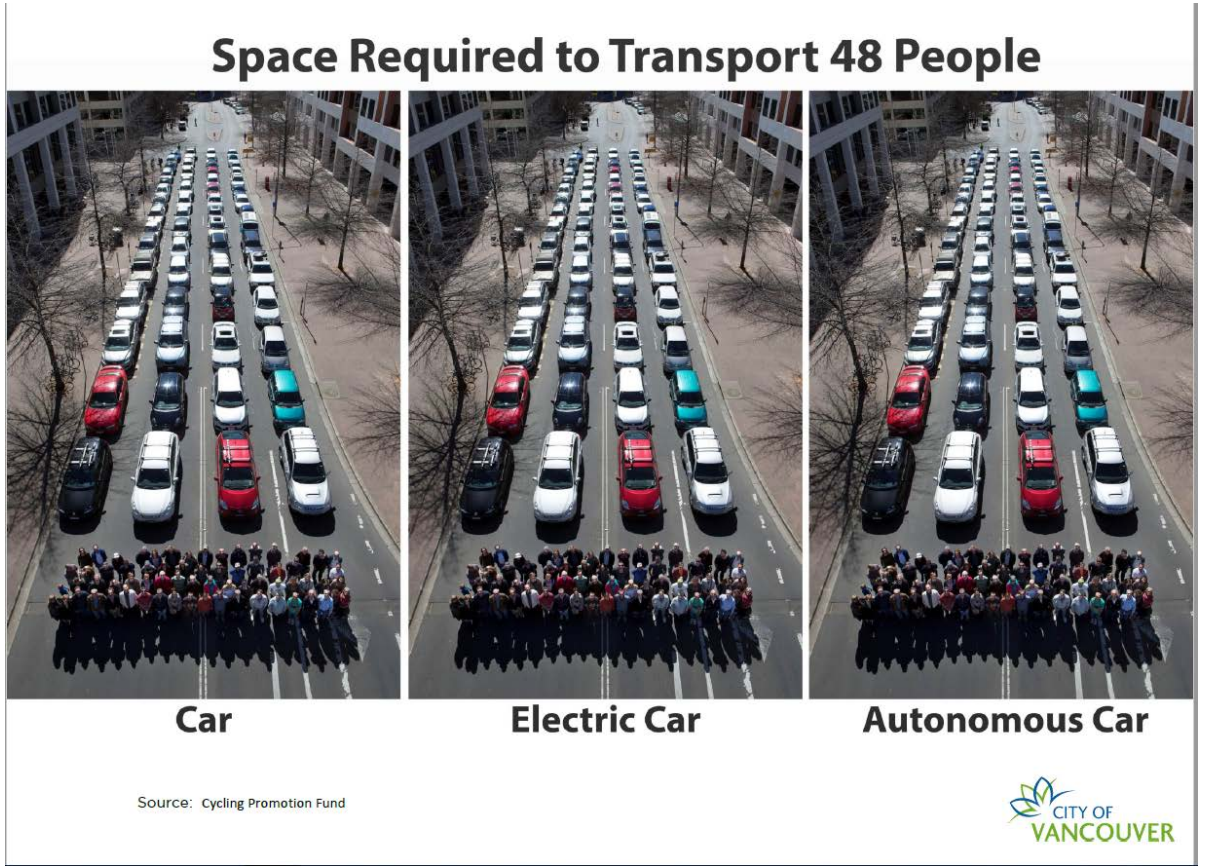

25
20
15
10
5
Average speed (km/hr)
0
5
10
15
20
25
30
Proportion of PHV vehicles (%)

He’s seen the future and he thinks it works…

“… if cars could drive themselves, there would be no need for most people to own them. A fleet of vehicles could operate as a personalized public-transportation system, picking people up and dropping them off independently, waiting at parking lots between calls…

Streets would clear, highways shrink, parking lots turn to parkland.

Researchers have seen the future, and…



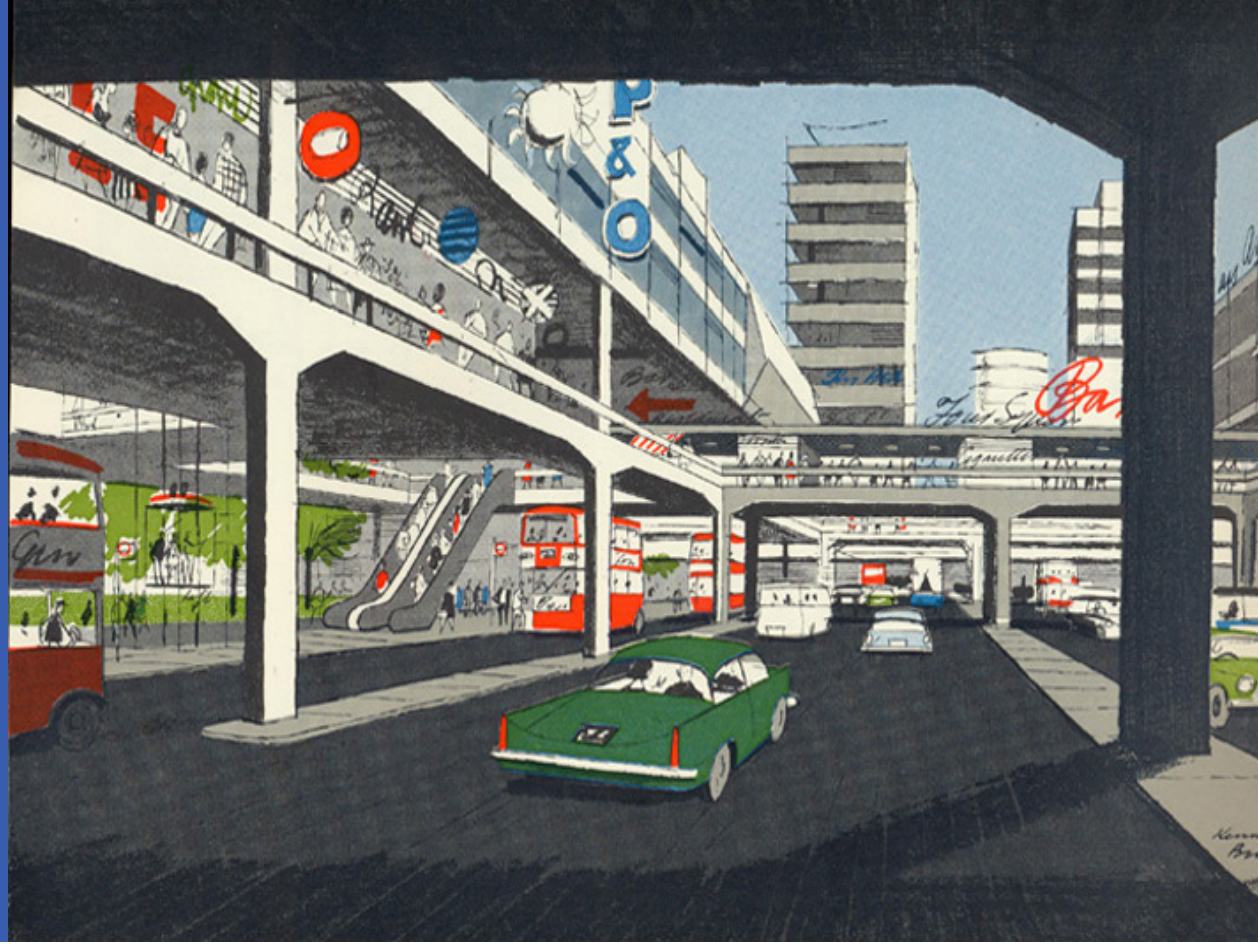
Change in Fleet	Scenario	Car Kms (Millions)	% of Baseline
0% self driving cars	Baseline	1.04	
100% shared self-driverless fleet	With ride sharing and high capacity public transport	1.13	109%
	Vehicle but not ride sharing no high capacity public transport	2.11	203%
50% private car use for motorised trips	With ride sharing and high capacity public transport	1.35	136%
	Vehicle but not ride sharing no high capacity public transport	2.04	197%

Careful what you wish for…

"Public transport riders may find the MaaS concept more attractive than their current mode of transport. In the scenario where both, car and public transport riders, change to a MaaS system based on individual driving (without ridesharing), the traffic doubles compared to the base scenario. Despite autonomous vehicles being able to use the road capacity more efficiently than human drivers, the current infrastructure would not manage to deal with such an increase. ***In the scenario where public transport riders change to MaaS systems with ridesharing, an increase of almost 1/3 compared with the base scenario is estimated.*** *This would pose as a significant challenge for the road capacity and would be in conflict with the city's climate goals." (Ruter, 2019: 9)..*

So what *should* we do?

We've been here before…



… undoing what ‘progress’ said was ‘inevitable’

Evening Standard.

News › Transport

Cars, lorries and taxis to be banned from Tottenham Court Road in £35m revamp

ROSS LYDALL | Friday 4 January 2019 10:59 | 85 comments

A concrete underpass for the 21st century

Forbes Billionaires Innovation Leadership Money Consumer Industry Lifestyle

Never Is Not Answer When Law Commission Asks Whether Driverless Cars Can Nudge Pedestrians

Carlton Reid Contributor
Transportation
I have been writing about transport for 30+ years.

Rather amazingly, a legal peek into the future governance of autonomous vehicles has asked when it might be "required" for driverless cars to break the law – and the answer seems to be "plenty of times." A joint consultation by the Law Commission of England and Wales and the Scottish Law Commission has suggested creating a "digital Highway Code" that would allow carmakers to program AVs to exceed speed limits, drive up on to sidewalks and "edge through pedestrians."

We need some principles to guide us...

- Where is the *public value* to be found in (smart) mobility?

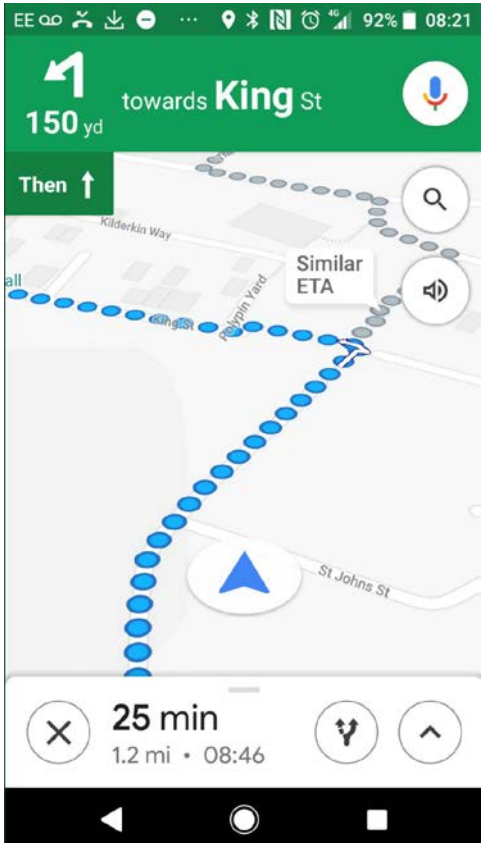
We need some principles to guide us...

- Where is the *public value* to be found in (smart) mobility?
  - Carbon reduction
  - Economic development
  - Social inclusion
  - Wellbeing
  - Better places

Key contentions

- No amount of smart technology will overcome the need for good policy, planning & governance
- We need to plan proactively to try to ensure socially- and environmentally-desirable outcomes from smart mobility and to minimise externalities because a positive outcome is not guaranteed
- These start at the level of the individual

Public value starts at the level of the individual



Collective choices are the sum of individual ones


OPTISSIMO
OPTISSIMO
PARFUMER

But they are also dependent on the system…

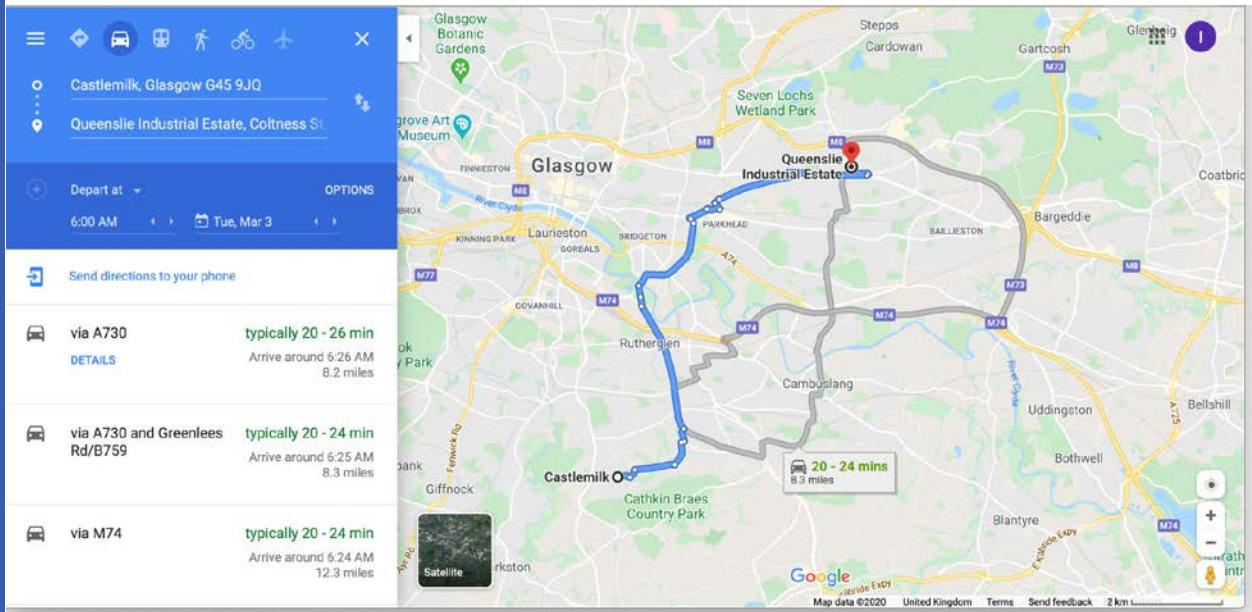
Peter Lloyd
@PJL1971

Replying to @PJL1971 and @iaindocherty

The problem is persuading middle class civil servants… I always pose the Castlemilk to Queenslie Ind Est question. How do you do that without running a cash-sink of a car?

8:41 PM · Mar 3, 2020 · Twitter for Android

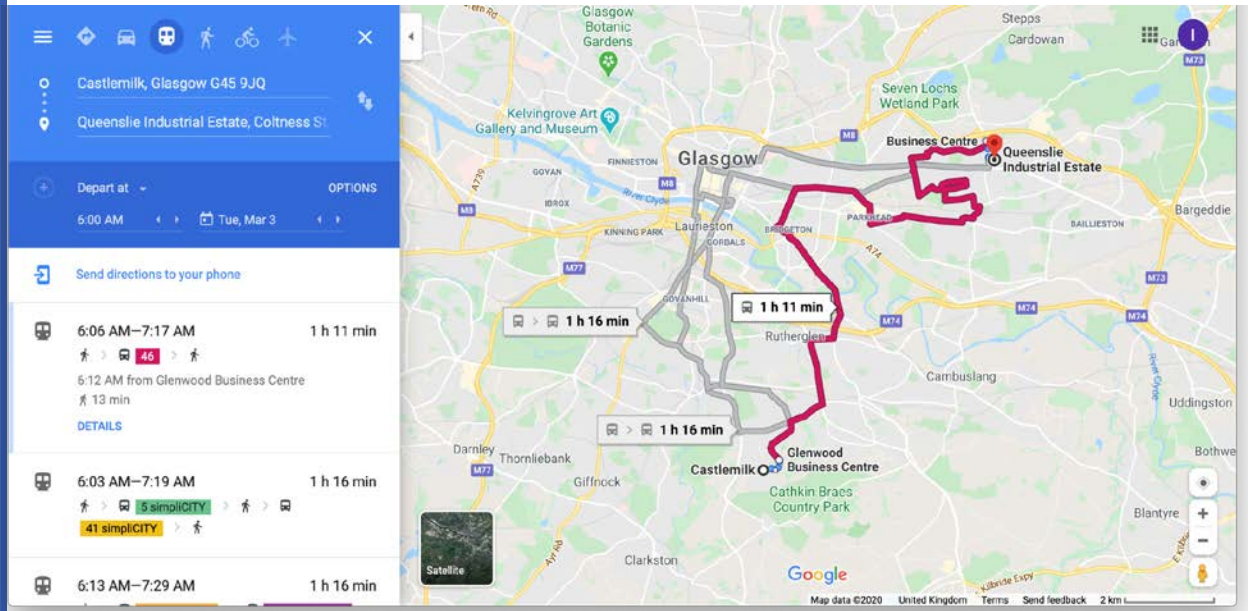
How *do* you get from Castlemilk to Queenslie?



UNIVERSITY of STIRLING

BE THE DIFFERENCE

How *do* you get from Castlemilk to Queenslie?



For more...

Transportation Research Part A 115 (2018) 114–125

Contents lists available at ScienceDirect

Transportation Research Part A

journal homepage: www.elsevier.com/locate/tra

The governance of smart mobility

Iain Docherty[a,*], Greg Marsden[b], Jillian Anable[b]

[a] Adam Smith Business School, University of Glasgow, Glasgow G12 8QQ, United Kingdom
[b] Institute of Transport Studies, University of Leeds, 34-40 University Road, Leeds LS2 9JT, United Kingdom

ARTICLE INFO

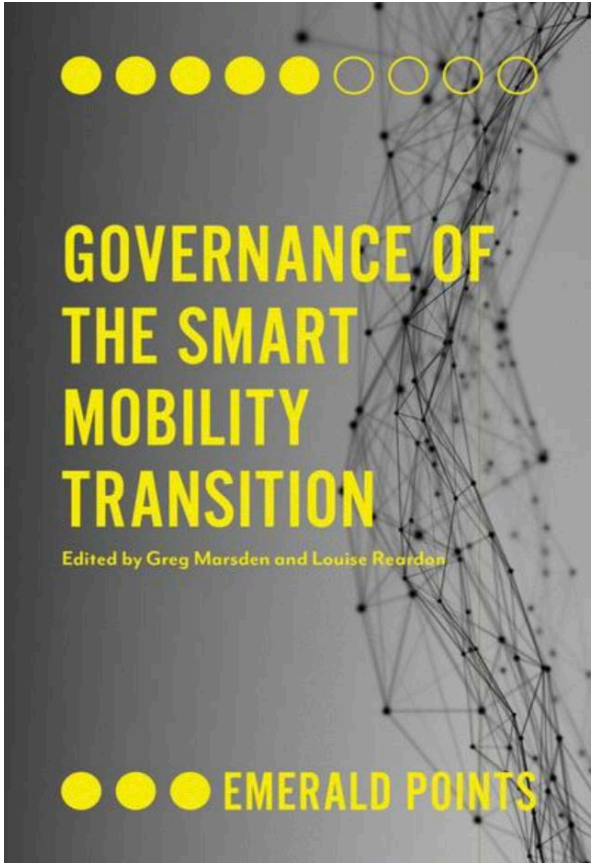
Keywords:
Governance
Transition
Public value
Smart technology
Mobility
Externalities

ABSTRACT

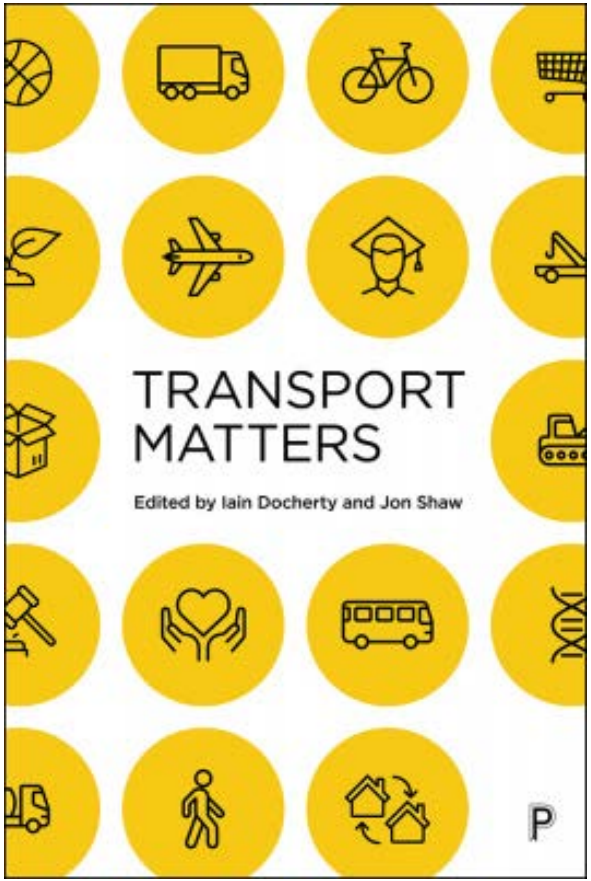
There is an active contemporary debate about how emerging technologies such as automated vehicles, peer-to-peer sharing applications and the 'internet of things' will revolutionise individual and collective mobility. Indeed, it is argued that the so-called 'Smart Mobility' transition, in which these technologies combine to transform how the mobility system is organised and operates, has already begun. As with any socio-technical transition there are critical questions to be posed in terms of how the transition is managed, and how both the benefits and any negative externalities of change will be governed.

This paper deploys the notion of ensuring and enhancing public value as a key governance aim for the transition. It sets out modes and methods of governance that could be deployed to steer the transition and, through four thematic cases explores how current mobility governance challenges will change. In particular, changing networks of actors, resources and power, new logics of consumption, and shifts in how mobility is regulated, priced and taxed – will require to be successfully negotiated if public value is to be captured from the transition. This is a critical time for such questions to be raised because technological change is clearly outpacing the capacity of systems and structures of governance to respond to the challenges already apparent. A failure to address both the short and longer-term governance issues risks locking the mobility system into transition paths which exacerbate rather than ameliorate the wider social and environmental problems that have challenged planners throughout the automobility transition.

For more...


GOVERNANCE OF THE SMART MOBILITY TRANSITION
Edited by Greg Marsden and Louise Reardon
EMERALD POINTS

For more...



Handelsblatt.com

UNIVERSITY of STIRLING

Thank you

iain.docherty@stir.ac.uk

BE THE DIFFERENCE