Mobility as a Service

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Part of the Tranzinfo Hot Topics series, this issue offers a selection of material on Mobility as a Service (MaaS). A consumer-centric model of transport, MaaS integrates various forms of transport modes and services into a single on-demand mobility service platform, usually via a smartphone app. It plans whole journeys to meet a customer's request, combining a diverse range of transport modes, such as public transport and car- or bike-sharing, and can be paid for through a single payment channel.

Contents:

Concept

Mobility as a Service: concept and practice
National Center for Mobility Management (US), 2018.
Outlines a strategy for giving customers a single interface through which they can access any and all transportation services in their community: Mobility as a Service (MaaS).

Mobility as a Service
UK House of Commons Transport Committee, 2018.
This Report is intended to increase public awareness of MaaS and to highlight its importance for policy makers. Clarifies the Department for Transport's (DfT) role in shaping its development in the UK.

Mobility-as-a-service: the coming transportation revolution
QIC, Brisbane, 2018.
Argues that established infrastructure assets must be transformed into dynamic transport networks which are suitable for MaaS platforms, guided by a clear understanding of user behaviours and customer expectations.

The rise of mobility as a service: reshaping how urbanites get around
Goodall, W. et al., Deloitte University Press, 2017.
Examines what is driving interest and experimentation in MaaS in cities around the world, outlines the core elements of MaaS and how this concept could evolve, and describes the role of government and the private sector in realizing the benefits MaaS brings.

Mobility as a Service: from modes to mobility.
Ertico (Intelligent Transport Systems Europe), 2019.
As demand grows for a new user-centric, customer-centric, market-centric mobility model, Mobility as a Service (MaaS) is challenging current players in the transport industry.

Tackling road congestion – what might it look like in the future under a collaborative and connected mobility model?
Hensher, D., University of Sydney, Institute of Transport and Logistics Studies, 2018.
Discusses a number of initiatives, including MaaS, that may help to mitigate traffic congestion in the future.

Improved mobility through blurred lines
Schweiger, C., Journal of Public Transportation, vol. 21 No. 1, 2018, pp. 60-66.
Recognizing that mobility represents an individual's travel better than specific modes will allow the transit industry to make a positive impact on travellers making trips in a manner that works best for them. One technology-enabled innovative service that will likely be part of the future public transportation landscape is Mobility as a Service (MaaS).

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Governance

Seeking perpetual motion with mobility as a service
Hazan, J., Lang, N., & El Abassi Chraibi, H., Boston Consulting Group, 2019.
Taking on the role of MaaS orchestrator will help cities to optimize transportation and meet economic, environmental and social objectives.

Guidelines and recommendations to create the foundations of a thriving MaaS ecosystem
MaaS Alliance, September 2017.
Currently the transport sector is mode-specifically regulated which does not always favour the implementation of MaaS. Development of the MaaS market will rely on access to open data, open APIs (Application Programming Interface) and more flexible transport and mobility regulations.

Mobility as a Service (MaaS) in Australia: customer insights and opportunities
Intelligent Transport Systems Australia, 2018.
'Mobility as a Service' (MaaS) offers the potential to drastically improve customer choices, reduce travel costs, increase network capacity and transport sustainability while improving social and environmental outcomes. This report offers an evidence base to help prepare for the major changes anticipated in a way that cleverly builds on existing assets and delivers user-centric services that match the increasing expectations of customers.

Main challenges associated with MaaS & approaches for overcoming them
MaaS Alliance, Brussels, 2019.
Outlines some of the key challenges facing MaaS implementations, and offers some advice on how to deal with stakeholders.

MaaS guidebook
MaaS Alliance, Brussels, 2018.
This guide is intended as a high-level overview of the key aspects needed to sustain a MaaS ecosystem. Each key concept is outlined in 1-2 pages, in plain language with links for further reading.

Emerging transport technologies and the modal efficiency framework: a case for mobility as a service (MaaS)
Wong, Y. et al., University of Sydney, Institute of Transport and Logistics Studies, 2018.
Various models for implementing MaaS are evaluated including the distinction between commercially-motivated models (presently well advanced in research and development), and systems which incorporate an institutional overlay. The latter, government-led MaaS, is recommended for implementation. Amidst the hype of this emerging transport paradigm, a critical assessment of the realm of possibilities can better inform government policy and ensure that digital disruption occurs to our advantage.

Mode-agnostic mobility contracts: identifying broker/aggregator models for delivering mobility as a service (MaaS)
Wong, Y., Hensher, D. & Mulley, C. University of Sydney, Institute of Transport and Logistics Studies, 2019.
Proposes the idea of mode-agnostic mobility contracts as the interface for bringing together specialised businesses as part of the new MaaS ecosystem.

Mobility as a service: development scenarios and implications for public transport
Smith, G., Sochor, J & Karlsson, M., Research in Transportation Economics, 2018.
To facilitate a modal shift from private cars to serviced transport modes including public transport may require new forms of partnerships.

Regulation and governance supporting systemic MaaS innovations
Surakka, T. et al. Research in Transportation Business & Management, vol 27, 2018, pp. 56-66.
This paper examines how differences in institutional organisation, stakeholder processes, and technological development have resulted in different approaches to regional governance when supporting systemic innovations in transportation. Two European regions with established collaboration networks in transportation and spatial planning are compared - the Growth Corridor Finland and the Basel metropolitan area in Switzerland.

The development of Mobility-as-a-Service in the Helsinki metropolitan area: a multi-level governance analysis
Andouin, M. Research in Transportation Business & Management, 2018.
Findings indicate that it was mainly thanks to mechanisms such as a strong vision from public authorities and the development of dedicated legislation that MaaS could finally move forward in the Finnish capital region.

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Practice

Mobility as a Service Alliance (MaaS Alliance)
The Mobility as a Service (MaaS) Alliance is a public-private partnership creating the foundations for a common approach to MaaS to unlock the economies of scale needed for successful implementation and take-up of MaaS in Europe and beyond. The main goal is to facilitate a single, open market and full deployment of MaaS services.

Mobility-as-a-Service and changes in travel preferences and travel behaviour: a literature review
Durand, A. et al. KiM Netherlands Institute for Transport Policy Analysis, 2018.
This study responds to the 'lack of clarity' about MaaS's impacts on travel behaviour and preferences.

Public–private innovation: barriers in the case of mobility as a service in West Sweden
Smith, G., Sochor, J & Karlsson, M. Public Management Review, vol 21, 2019, pp. 116-137.

This case study explores the development of Mobility as a Service (MaaS) in West Sweden. An analysis of 19 interviews reveals how representatives from stakeholders perceive internal and external barriers that hampered the regional public transport authority's attempts to collaborate with private actors.

Identifying barriers in shared mobility implementation: a review.
Meng, L et al., Australasian Transport Research Forum, 40th, 2018, Darwin.
This paper reviews the development of commercial bike and car sharing schemes, then examines the technologies and policies that support MaaS. Provides an in-depth discussion of the characteristics and needs of shared mobility services and investigates the barriers to applying the Internet of Things (IoT), cybersecurity and blockchain in the first/last mile mobility challenge.

Understanding the influence of mobility as a service (MaaS) on job accessibility and transportation equity
Wang, f., Ross, C. & Karner, A. Transportation Research Board 98th Annual Meeting, 2019.
This research quantifies the impact of MaaS on job accessibility and transit service equity in the Puget Sound region. Results suggest that using MaaS to serve short trips either connecting to/from transit or single modal trips can substantially elevate the existing level of job accessibility regionwide.

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Platforms

RACV unveils Aussie first commuter app
CIO Magazine, 25 February 2019
The RACV has launched Arevo, a mobility-as-a-service app that enables Melbourne commuters to plan, pay for and access different transport options.

Tech companies chosen to develop mobility solutions
Transport for NSW media release, 23 November 2018.
Five finalists, including Uber and Sydney-based data specialists Lynxx, have been selected to progress to the test and learn stage of Transport for NSW's MaaS Innovation Challenge.

Moovit
With over 350 million users worldwide, the Moovit app provides a real-time journey planner that navigates public transit networks.

SkedGo
Sydney startup SkedGo has developed a mobility app that includes real-time data and door-to-door trip planning, with the ability to add personalisation, calendars, book and pay, parking and events.

Whim
Whim is recognised as the first MaaS app, developed by MaaS Global in Helsinki, Finland. For more information on how the app works view their YouTube Whim explainer

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